GRUNDIG

TV Service Manual

Chassis LX IDTV (iX)

Lenaro 19

LXW 49-7741 DVB-T	GBG1200
LXW 49-7741 N DVB-T	GBG9300

Davio 20

LCD 51-5732 DVB-T	GBG1300

Lenaro 26

LXW 68-7732 DVB-T	GBG1100
LXW 68-7732 N DVB-T	GBG9400

Lenaro 32

LXW 82-7732 DVB-T	GBG1400

Vivance

32-6832 DVB-T	GBG9200

Zusätzlich erforderliche Unterlagen für den Komplettservice
Additionally required Service Documents for the Complete Service

Service Manual

Sicherheit
Safety

Materialnr./Part No.
720108000001

Materialnummer / Part Number 720100531000
Änderungen vorbehalten / Subject to alteration
TCC 0108 MP • Prepared in Germany
http://www.grundig.com

Es gelten die Vorschriften und Sicherheitshinweise gemäß dem Service Manual "Sicherheit", Materialnummer 720108000001, sowie zusätzlich die eventuell abweichenden, landesspezifischen Vorschriften!

The regulations and safety instructions shall be valid as provided by the "Safety" Service Manual, part number 720108000001, as well as the respective national deviations.

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Allgemeiner Teil

Allgemeine Hinweise

Vor dem Öffnen des Gehäuses den Netzstecker ziehen!

Achtung: ESD-Vorschriften beachten

Leitungsverlegung
Bevor Sie die Leitungen und insbesondere die Masseleitungen lösen, muss die Leitungsverlegung zu den einzelnen Baugruppen beachtet werden.
Nach erfolgter Reparatur ist es notwendig, die Leitungsführung wieder in den werkseitigen Zustand zu versetzen um evtl. spätere Ausfälle oder Störungen zu vermeiden.

Durchführen von Messungen
Bei Messungen mit dem Oszilloskop an Halbleitern sollten Sie nur Tastköpfe mit 10:1 - Teiler verwenden. Außerdem ist zu beachten, dass nach vorheriger Messung mit AC-Kopplung der Koppelkondensator des Oszilloskops aufgeladen sein kann. Durch die Entladung über das Messobjekt können Bauteile beschädigt werden.

Messwerte und Oszillogramme
Bei den in den Schaltplänen und Oszillogrammen angegebenen Messwerten handelt es sich um Näherungswerte!

General Section

General Notes

Before opening the cabinet disconnect the mains plug!

Attention: Observe the ESD safety regulations

Wiring
Before disconnecting any leads and especially the earth connecting leads observe the way they are routed to the individual assemblies. On completion of the repairs the leads must be laid out as originally fitted at the factory to avoid later failures or disturbances.

Carrying out Measurements
When making measurements on semi-conductors with an oscilloscope, ensure that the test probe is set to 10:1 dividing factor. If the previous measurement was made on AC input, please note that the coupling capacitor in the oscilloscope will be charged. Discharge via the item being checked can damage the components.

Measured Values and Oscillograms
The measured values given in the circuit diagrams and oscillograms are approximates!

Platinenabbildungen und Schaltpläne / Layout of PCBs and Circuit Diagrams

Hauptplatte / Main Board

POS.	X	Y
C300	T 72	183
C304	T 85	124
C305	T 95	103
C306	T 98	103
C307	T 188	82
C308	B 85	43
C309	B 79	39
C310	T 95	42
C311	T 99	43
C312	B 85	28
C313	B 79	28
C314	T 95	26
C315	T 100	26
C316	T 9	149
C322	T 188	85
C323	T 152	182
C324	T 154	182
C325	T 75	171
C326	T 103	60
C327	T 127	40
C328	T 72	176
C329	T 166	36
C330	T 166	34
C332	B 114	166
C333	T 82	185
C334	T 77	187
C335	T 79	178
C336	T 101	75
C337	T 127	42
C338	T 131	177
C339	B 132	165
C340	B 131	143
C341	B 135	143
C342	B 144	140
C346	T 111	129
C348	T 167	49
C349	T 9	55
C350	T 188	186
C351	T 167	43
C352	T 78	56
C353	T 6	36
C354	T 9	41
C355	B 140	145
C356	B 148	145
C357	T 151	154
C358	B 146	168
C359	B 126	165
C360	B 125	169
C361	B 122	169
C362	B 116	165
C363	B 116	161
C364	B 139	169
C365	B 129	169
C366	B 116	158
C367	B 116	144
C368	B 120	143
C369	B 140	140
C370	B 120	163
C371	B 115	140
C372	B 146	138
C373	B 116	152
C374	B 116	147
C375	B 122	141
C376	B 125	143
C377	T 9	43
C378	T 159	134
C379	T 156	156
C380	T 99	70
C381	T 126	35
C382	T 86	177
C383	T 167	48
C384	B 8	77
C385	B 6	62
C386	B 91	17
C387	B 141	177
C388	B 139	177
C389	T 119	51
C390	T 150	134
C391	B 6	66
C393	T 97	137
C394	T 87	140
C395	T 74	158
C396	T 123	60
C397	B 89	181
C398	B 101	176
C399	B 101	181
C400	B 108	176
C401	B 108	181
C402	B 105	172
C403	B 101	172
C404	B 103	176
C405	B 105	162
C406	B 146	147
C407	B 143	149
C408	T 142	176
C409	T 143	173
C410	T 186	150
C411	B 192	56
C412	T 176	125
C413	T 170	128
C414	T 176	126
C415	T 164	21
C416	T 151	153
C417	T 190	132
C418	T 176	37
C419	T 151	132
C420	T 155	131
C421	T 158	162
C422	T 143	176
C423	T 145	174
C424	T 74	160
C425	T 106	105
C426	T 190	149
C427	T 187	74
C428	T 187	109
C429	T 190	102
C430	T 190	164
C431	T 187	130
C432	T 190	144
C433	T 191	168
C434	T 190	136
C435	T 190	145
C436	T 176	42
C437	T 176	39
C438	T 176	34
C439	T 176	41
C440	T 176	36
C441	T 176	32
C442	T 173	147
C443	T 170	147
C444	B 107	162
C446	B 190	140
C447	B 190	126
C448	B 187	17
C449	B 187	11
C450	T 190	107
C451	T 190	114
C452	T 190	124
C453	T 190	139
C454	T 186	13
C455	T 186	9
C456	T 190	110
C457	T 190	119
C458	T 115	17
C459	T 118	17
C460	T 167	21
C461	T 170	24
C462	T 190	127
C463	T 187	140
C464	T 186	16
C465	T 186	12
C466	T 187	113
C467	T 190	116
C468	T 112	20
C469	T 116	20
C470	T 168	24
C471	T 171	24
C472	T 179	117
C473	T 190	103
C474	T 190	112
C475	T 190	157
C476	T 190	151
C477	T 181	141
C478	T 174	144
C479	T 191	167
C480	T 86	14
C481	T 98	17
C482	T 106	17
C483	T 108	17
C484	T 97	17
C485	T 103	17
C486	T 109	20
C487	T 146	17
C488	T 162	17
C489	T 145	17
C490	T 171	108
C491	T 165	115
C492	T 183	112
C493	B 154	96
C494	T 178	102
C495	B 168	103
C496	B 137	107
C497	T 153	116
C498	T 157	104
C499	B 155	105
C500	T 158	116
C501	T 156	116
C502	T 168	112
C503	T 161	116
C504	B 157	105
C505	B 159	119
C506	T 172	115
C507	B 167	122
C508	T 182	138
C509	T 180	138
C512	T 174	102
C513	B 162	96
C514	B 166	96
C515	T 159	104
C516	T 173	121
C517	T 176	120
C518	T 175	130
C519	T 173	126
C520	T 181	133
C521	T 182	135
C522	T 183	102
C523	B 170	107
C548	T 103	49
C549	B 82	42
C550	B 82	28
C551	T 97	22
C552	T 103	51
C553	T 94	53
C554	T 102	45
C555	T 107	44
C556	T 102	24
C557	T 115	36
C558	T 108	25
C559	T 90	138
C560	T 106	25
C561	T 108	44
C562	T 110	44
C563	T 110	25
C564	T 110	26
C565	T 112	44
C566	T 117	25
C567	T 139	177
C568	T 137	177
C578	B 102	45
C579	T 83	98
C580	T 90	98
C581	B 106	8
C582	T 83	14
C583	T 100	14
C584	T 92	14
C585	T 105	14
C586	T 108	14
C587	T 90	14
C588	B 167	8
C589	B 145	13
C590	T 167	14
C591	B 147	13
C592	B 114	8
C593	T 116	14
C594	B 174	8
C595	T 168	14
C596	T 113	14
C597	T 120	14
C598	T 167	17
C599	T 171	17
C600	T 133	6
C601	T 131	6
C602	T 133	11
C603	T 128	11
C604	B 102	166
C605	T 176	15
C606	T 182	15
C607	T 133	19
C608	T 123	22
C609	T 162	24
C610	T 152	24
C611	T 136	177
C612	T 132	177
C613	B 150	17
C614	T 170	14
C615	B 181	13
C616	T 135	23
C617	B 15	43
C618	B 141	149
C619	T 118	102
C620	T 130	60
C621	T 129	72
C622	B 144	152
C623	T 131	113
C624	T 146	118
C625	T 132	105
C626	T 146	123
C627	T 139	133
C628	T 138	118
C629	T 138	118
C630	T 139	118
C631	T 191	74
C632	T 193	154
C633	T 141	118
C634	T 145	126
C635	T 190	94
C636	T 78	14
C639	T 146	14
C640	T 168	147
C641	T 139	18
C642	T 163	28
C643	T 102	81
C645	T 129	89
C646	T 129	91
C647	B 128	95
C648	B 126	96
C649	B 125	88
C650	B 118	98
C651	B 118	89
C652	B 128	85
C653	T 64	159
C654	B 119	85
C655	B 112	92
C656	B 121	85
C657	B 114	96
C658	B 123	96
C659	B 114	89
C660	B 124	85
C661	T 59	182
C662	B 130	95
C663	T 129	94
C664	T 125	101
C665	T 123	101
C666	T 126	83
C667	T 117	83
C668	T 67	153
C669	T 22	158
C670	T 22	180
C674	T 48	181
C709	T 129	93
C710	B 10	38
C711	T 125	60
C712	T 103	62
C719	B 10	154
C800	B 30	47
C801	B 43	162
C802	B 46	138
C804	B 29	138
C805	B 46	134
C806	B 51	137
C807	B 44	138
C808	B 39	138
C809	B 36	138
C810	B 33	138
C811	B 43	166
C812	B 34	172
C813	B 34	168
C814	B 34	164
C815	B 37	160
C816	B 37	150
C817	B 46	169
C818	B 39	115
C819	B 44	115
C820	B 53	129
C821	B 35	115
C822	B 36	119
C823	B 40	119
C824	B 42	115
C826	B 27	119
C827	B 51	119
C828	B 27	128
C829	B 26	138
C830	B 48	132
C831	B 59	134
C832	B 59	129
C833	B 57	135
C834	B 31	119
C835	B 27	123
C836	B 29	134
C837	B 42	138
C838	B 31	138
C839	B 48	125
C840	B 55	135
C841	B 45	149
C842	B 47	148
C843	T 50	173
C844	T 18	152
C845	T 59	119
C846	T 64	118
C848	B 44	43
C850	B 54	97
C851	T 25	152
C852	B 37	115
C853	T 19	137
C854	T 56	103
C859	T 51	104
C860	T 59	105
C900	B 21	88
C901	B 39	89
C902	B 30	89
C903	B 42	54
C904	B 30	54
C905	B 57	87
C906	B 56	111
C907	B 26	55
C908	B 21	95
C909	B 21	102
C910	B 34	103
C912	B 43	86
C913	T 12	133
C914	B 41	72
C915	B 41	82
C917	B 62	114
C918	T 38	40
C920	T 19	94
C925	T 74	75
C926	T 83	65
C927	T 74	71
C928	T 77	64
C929	T 95	77
C930	T 78	75
C931	T 93	66
C932	T 94	68
C933	T 87	61
C934	T 84	85
C935	T 77	78
C936	T 77	82
C937	T 76	91
C938	T 83	89
C940	B 138	13
C941	T 126	27
C942	B 135	13
C943	T 127	17
C944	T 157	24
C947	T 104	116
C950	B 6	77
C951	B 6	73
C952	B 6	69
C953	B 105	132
C954	B 131	129
C955	B 128	130
C956	B 133	133
C957	B 130	133
C958	T 105	127
C959	B 108	122
C960	B 115	121
C961	B 118	121
C962	B 102	124
C963	B 100	131
C964	B 109	131
C965	B 103	120
C966	B 107	118
C967	B 100	117
C968	B 102	118
C969	B 116	126
C970	B 118	126
C971	B 107	127
C972	B 112	127
C973	B 115	131
C974	B 102	128
C975	B 112	131
C976	B 100	128
C977	B 109	136
C978	B 103	136
C979	B 105	136
C980	B 107	136
D1	T 5	185
D200	T 75	68
D300	T 119	35
D307	T 84	165
D308	T 187	172
D309	T 187	56
D310	B 195	44
D311	B 192	32
D312	B 190	56
D313	B 194	37
D314	B 196	40
D315	T 182	35
D316	T 182	39
D317	T 182	43
D318	T 140	112
D326	T 143	21
D327	B 141	18
IC201	T 91	17
IC204	T 79	69
IC300	T 75	183
IC302	T 112	69
IC303	T 81	173
IC305	T 137	41
IC306	T 76	154
IC307	T 124	109
IC308	T 147	134
IC309	T 131	154
IC310	T 99	178
IC311	T 98	175
IC312	T 77	163
IC313	T 183	121
IC314	T 183	156
IC315	T 185	180
IC316	T 193	59
IC317	T 157	110
IC319	T 165	105
IC320	T 138	125
IC321	T 104	35
IC322	T 76	163
IC323	T 94	143
IC325	T 127	66
IC328	T 174	48
IC329	T 171	44
J800	T 62	139
J900	T 44	99
L100	T 116	43
L101	T 120	46
L200	B 183	44
L201	B 183	42
L202	B 183	39
L300	B 117	169
L301	B 84	61
L303	T 89	91
L304	T 95	91
L305	T 106	109
L308	T 5	84
L309	B 159	134
L310	T 154	161
L311	T 84	169
L312	T 153	164
L313	T 153	166
L314	B 122	163
L315	T 151	135
L316	T 131	173
L317	T 82	178
L318	T 86	178
L319	T 86	180
L320	T 87	162
L321	T 141	24
L322	T 166	39
L323	T 166	37
L325	T 190	97
L326	T 188	79
L327	T 190	156
L328	T 177	143
L329	T 188	80
L330	T 165	126
L331	T 165	121
L332	T 168	140
L333	T 176	107
L334	B 142	103
L335	T 180	102
L339	T 77	43
L340	T 87	43
L341	T 87	28
L342	T 77	28
L345	T 104	137
L346	T 89	138
L347	T 94	59
L348	T 97	60
L349	T 155	182
L350	T 150	182
L351	T 111	14
L352	T 118	14
L353	T 168	17
L354	T 170	17
L355	B 151	17
L357	B 11	45
L359	T 139	132
L360	T 144	118
L362	B 13	41
L364	B 117	167
L370	T 124	104
L371	T 120	102
L372	T 129	87
L373	T 112	101
L374	B 129	92
L375	B 7	156
L376	T 183	187
L377	B 173	184
L378	B 169	184
L379	T 183	189
L380	B 163	184
L500	B 9	27
L501	B 9	30
L502	B 9	21
L503	B 9	24
L504	T 77	43
L505	T 88	43
L506	T 88	28
L507	T 77	28
L800	T 19	145
L801	T 52	168
L802	T 45	174
L803	T 19	142
L804	T 21	146
L805	T 23	146
L806	T 25	146
L807	T 56	105
L808	T 34	44
L900	T 14	128
L901	T 12	128
L902	T 38	37
L907	T 57	138
L908	T 86	79
L909	T 77	85
L910	T 8	65
L911	T 81	86
Q600	T 7	68
Q601	T 7	72
Q602	T 114	106
Q603	T 114	110
Q800	T 62	123
Q801	T 33	40
Q802	T 66	131
Q803	T 66	137
Q804	T 66	107
R1	B 66	7
R2	B 84	20
R300	T 70	187
R301	T 77	96
R304	T 65	54
R305	T 61	44
R306	T 62	46
R307	B 10	41
R308	B 6	53
R309	T 90	155
R310	T 87	155
R311	T 121	124
R312	T 87	147
R313	T 103	141
R314	T 108	138
R315	T 108	140
R316	T 186	147
R317	T 186	148
R321	T 64	49
R322	T 95	105
R323	T 98	105
R324	T 87	120
R325	T 86	106
R326	T 87	116
R327	T 92	104
R328	T 78	99
R329	T 84	112
R330	T 87	124
R331	T 61	51
R333	T 74	58
R334	T 103	70
R335	T 103	73
R336	T 127	46
R337	T 127	44
R338	B 8	66
R339	T 170	121
R340	T 170	123
R341	B 8	62
R343	T 7	76
R344	B 11	62
R345	B 10	77
R346	T 145	135
R354	T 87	153
R355	T 74	176
R356	T 71	157

T: Koordinaten für die Bauteile der Bestückungsseite / Coordinates of the Components on the component side
B: Koordinaten für die Bauteile der Lötseite / Coordinates of the Components on the solder side

Hauptplatte / Main Board

POS.	X	Y
R357	T 76	150
R358	T 84	167
R359	T 84	162
R360	T 90	153
R361	B 143	145
R362	T 154	134
R363	T 133	134
R364	T 116	130
R365	T 116	126
R366	T 108	120
R367	T 116	122
R368	T 68	187
R369	T 184	118
R370	T 184	121
R371	T 105	123
R372	T 107	125
R373	T 109	131
R374	T 107	131
R375	T 40	47
R379	T 91	187
R380	T 93	187
R381	T 95	187
R382	T 119	181
R383	T 116	184
R384	T 120	174
R385	T 115	177
R386	T 77	167
R387	T 80	167
R388	T 98	152
R389	T 106	150
R390	T 110	150
R391	T 106	148
R392	T 110	148
R393	T 87	149
R394	T 103	139
R395	T 108	142
R396	T 108	137
R400	T 106	103
R401	T 142	132
R402	T 190	154
R403	T 188	75
R404	T 187	105
R405	T 190	100
R406	T 190	161
R407	T 190	129
R408	T 190	142
R409	T 194	168
R410	T 190	134
R411	T 190	147
R412	T 179	42
R413	T 179	39
R414	T 179	34
R415	T 179	41
R416	T 179	36
R417	T 179	32
R418	T 174	143
R419	T 175	147
R420	T 171	144
R421	T 111	163
R422	T 103	163
R423	T 103	165
R424	T 116	187
R425	T 115	173
R426	T 97	187
R427	T 99	187
R428	T 193	104
R429	B 193	112
R430	B 184	149
R431	B 181	150
R432	T 176	31
R433	T 179	31
R434	T 187	59
R435	T 187	61
R436	T 94	166
R437	T 96	167
R438	B 100	162
R439	B 103	162
R440	T 189	172
R441	T 190	98
R442	T 187	77
R443	B 191	155
R444	T 190	126
R445	T 190	141
R446	T 186	7
R447	T 190	117
R448	T 186	18
R449	T 190	108
R450	T 113	17
R451	T 120	17
R452	T 168	21
R453	T 170	21
R454	T 190	122
R455	T 190	137
R456	T 186	15
R457	T 186	10
R458	T 193	112
R459	T 190	121
R460	T 111	17
R461	T 119	20
R462	T 167	24
R463	T 171	21
R464	T 190	105
R465	B 193	118
R466	B 193	127
R467	B 193	132
R468	B 193	140
R469	B 193	146
R470	B 191	160
R471	B 195	160
R472	T 170	126
R473	T 176	123
R474	T 194	167
R475	T 85	14
R476	T 100	17
R477	T 105	17
R478	T 110	14
R479	T 97	14
R480	T 101	17
R481	T 110	17
R482	T 141	14
R483	T 163	17
R484	T 143	17
R485	T 190	159
R486	T 193	132
R487	B 190	146
R488	B 179	45
R489	B 179	41
R490	B 179	37
R491	T 190	131
R492	T 179	37
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R495	T 85	112
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R497	T 188	87
R498	T 188	83
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R500	T 181	172
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R502	T 187	156
R503	B 195	56
R504	T 161	104
R505	B 160	104
R506	T 187	152
R507	B 194	33
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R511	T 180	172
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R515	B 196	33
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R525	T 177	102
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R527	B 168	107
R528	B 149	102
R532	T 140	114
R533	T 143	113
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R535	T 149	116
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R537	T 154	116
R538	T 159	116
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R541	B 171	111
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R544	T 170	130
R545	T 165	130
R546	T 178	134
R547	T 175	136
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R549	T 172	130
R550	T 180	135
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R552	T 172	147
R553	T 167	130
R555	B 140	103
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R560	T 163	111
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R563	T 170	125
R564	T 176	121
R565	T 177	130
R566	T 174	130
R567	T 177	112
R568	T 176	112
R569	T 183	108
R570	T 113	39
R571	T 73	187
R572	T 181	106
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R574	T 110	23
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R576	T 77	182
R577	T 72	180
R578	T 87	112
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R586	T 103	22
R587	T 163	24
R588	T 139	173
R589	T 150	24
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R592	T 86	17
R593	T 93	17
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R617	T 150	17
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R627	T 123	21
R628	T 158	20
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R632	T 160	24
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R636	T 158	24
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R640	T 158	22
R641	T 151	22
R642	T 134	177
R643	B 132	177
R644	T 134	173
R645	T 132	173
R646	T 8	62
R647	B 100	8
R648	B 104	8
R649	B 11	67
R650	T 117	33
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R652	B 11	73
R653	T 117	36
R654	B 21	40
R655	T 146	126
R656	T 137	173
R657	T 136	173
R658	T 128	72
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R662	T 126	60
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R666	T 133	119
R667	T 146	131
R668	T 106	101
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R670	T 136	118
R672	T 111	106
R673	T 97	132
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R675	T 97	129
R676	T 109	126
R678	T 168	144
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R686	B 116	136
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R691	T 142	135
R692	T 190	152
R693	T 187	97
R694	T 191	77
R695	B 122	136
R696	T 124	125
R697	T 126	126
R698	B 8	73
R699	B 99	168
R700	T 128	129
R701	B 99	165
R702	T 137	19
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R704	T 74	105
R706	T 162	28
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R710	B 61	95
R711	B 61	93
R712	T 61	159
R713	T 50	178
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R721	T 129	97
R722	T 129	99
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R724	T 129	101
R725	T 126	101
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R730	T 107	96
R731	T 107	92
R732	T 107	89
R733	T 107	86
R734	T 107	84
R735	T 107	83
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R738	T 120	83
R739	T 123	83
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R746	B 178	96
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R800	B 42	154
R801	T 34	37
R802	B 41	162
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R804	T 37	145
R805	T 23	138
R806	T 65	128
R807	T 67	128
R808	T 58	141
R809	T 59	151
R810	T 59	146
R811	T 59	144
R812	T 59	149
R813	T 56	141
R814	T 31	37
R815	T 61	126
R816	T 34	47
R818	T 66	139
R819	T 66	134
R821	T 54	126
R822	T 66	111
R824	B 53	135
R825	B 43	158
R826	T 64	126
R827	T 57	126
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R829	T 60	95
R830	B 55	128
R831	B 33	119
R832	T 42	47
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R840	T 60	97
R844	T 53	104
R845	T 59	103
R900	B 12	80
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R905	B 17	88
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R911	B 18	96
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R913	T 44	102
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R915	B 10	100
R916	B 12	103
R917	B 18	104
R918	B 10	106
R919	B 14	108
R920	B 29	66
R921	B 36	62
R922	B 27	62
R923	B 29	62
R924	B 31	66
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R926	T 22	59
R927	T 56	58
R928	T 55	58
R929	T 23	94
R930	T 49	47
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R932	T 47	47
R933	T 73	52
R934	T 19	43
R935	T 77	75
R936	T 81	65
R937	T 76	71
R938	T 80	75
R939	T 82	70
R940	T 95	83
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R944	T 79	60
R945	T 73	68
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R947	T 74	59
R948	T 74	61
R949	T 19	46
R950	B 136	22
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R952	T 123	46
R953	T 95	14
R954	B 95	17
R955	T 114	36
R957	T 123	44
R958	T 81	60
RG800	T 39	145
RG801	T 41	145
RG802	T 44	145
RG803	T 46	145
RG804	T 28	145
RG805	T 30	145
RG806	T 33	145
RG807	T 35	145
RG808	T 50	145
RG809	T 52	145
RG810	T 56	144
RG811	T 54	124
RG812	T 54	121
RG813	T 59	101
RG814	T 66	123
S300	T 4	175
S301	T 4	161
S302	T 4	92
S303	T 4	51
S304	T 3	51
S306	T 4	71
S309	T 92	122
S311	T 115	127
S313	T 195	85
S314	T 170	187
S315	T 195	14
S316	T 196	101
S317	T 196	115
S318	T 196	129
S319	T 196	143
S320	T 196	157
S321	T 189	39
S322	T 195	178
S323	T 196	85
S324	T 4	25
S325	T 153	187
S326	T 102	8
S327	T 162	8
S328	T 101	124
S329	T 72	118
S802	T 73	134
SAW301T	143	110
SAW302T	143	105
SP900	T 41	45
T201	T 88	70
T213	B 136	18
T300	T 75	180
T301	T 19	41
T302	T 85	120
T303	T 74	97
T304	T 85	116
T305	T 65	52
T306	T 87	109
T307	T 65	46
T308	T 188	89
T309	T 184	106
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T311	T 123	16
T312	T 161	21
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T314	T 97	98
T315	T 187	94
T316	T 179	109
T317	T 176	165
T318	T 84	17
T319	T 156	17
T320	T 146	114
T321	T 171	134
T322	T 178	136
T323	T 173	124
T324	T 168	134
T325	T 178	140
T326	T 78	17
T328	T 151	14
T329	T 157	14
T330	T 174	133
T331	T 179	106
T333	T 117	39
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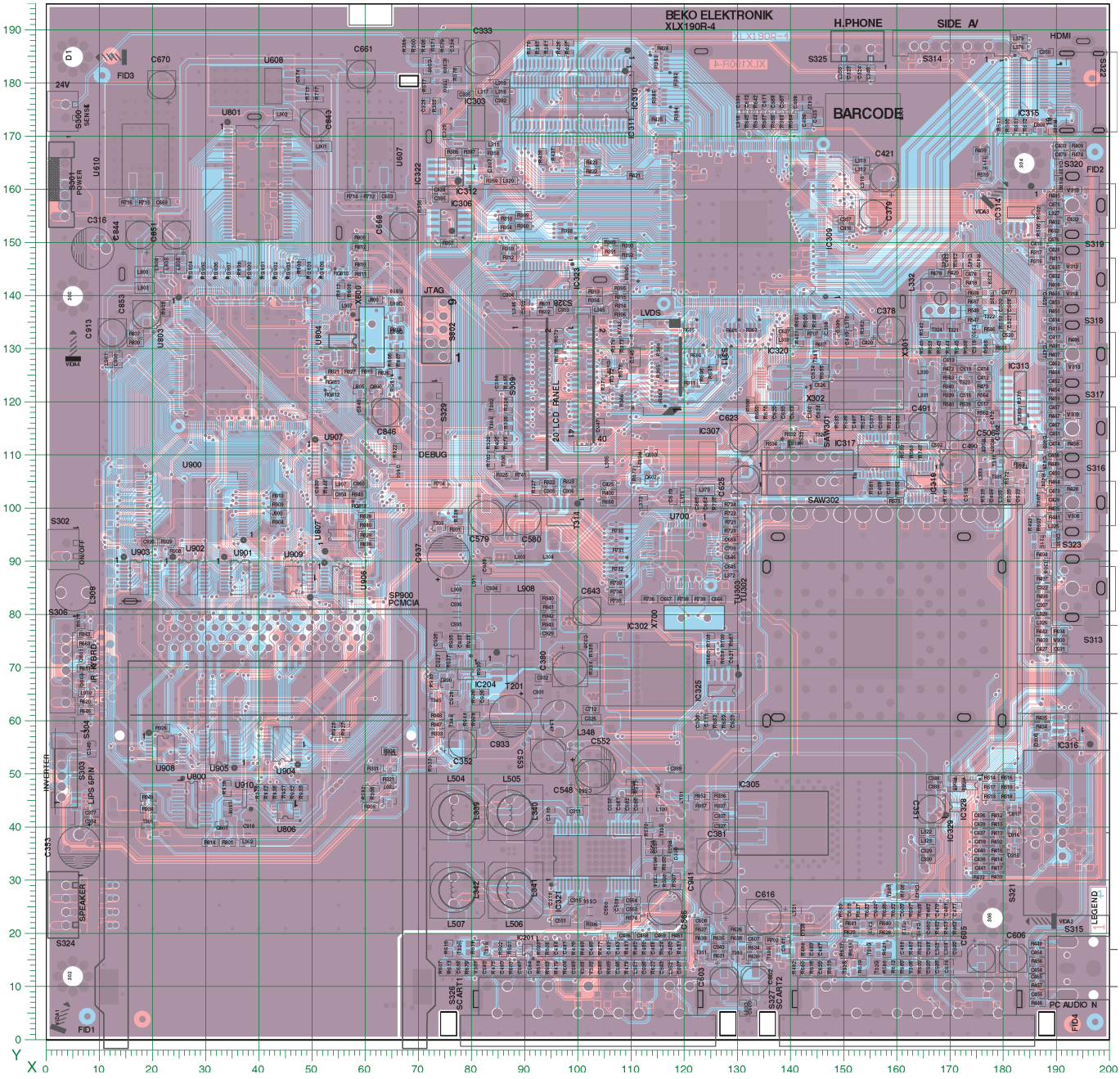
T337	B 17	41
T339	T 137	16
T340	T 159	28
T341	T 145	129
T344	T 77	60
T345	T 73	64
T346	T 116	47
TU302	T 158	80
TU303	T 158	80
U607	T 61	166
U608	T 43	180
U610	T 19	165
U700	T 119	91
U800	T 27	44
U801	T 40	161
U803	T 38	128
U804	T 56	132
U805	T 59	123
U806	T 45	43
U807	T 56	95
U900	T 27	101
U901	T 36	87
U902	T 27	87
U903	T 18	87
U904	T 44	56
U905	T 33	55
U906	T 56	87
U907	T 54	109
U908	T 23	55
U909	T 47	87
U910	T 37	45
V300	T 191	75
V301	T 81	14
V302	T 103	14
V303	T 101	14
V304	B 110	8
V305	B 143	13
V306	T 163	14
V307	T 187	102
V308	T 193	99
V309	T 193	118
V310	T 193	160
V311	B 190	132
V312	T 193	146
V313	T 193	127
V314	T 193	140
V315	B 195	155
V316	B 195	84
V317	B 112	8
V318	B 117	7
V319	B 118	13
V320	B 123	12
V321	B 171	8
V322	B 177	8
V323	B 179	8
V324	B 179	13
X301	T 154	127
X302	T 154	122
X700	T 122	79
X800	T 61	132

T: Koordinaten für die Bauteile der Bestückungsseite / Coordinates of the Components on the component side
B: Koordinaten für die Bauteile der Lötseite / Coordinates of the Components on the solder side

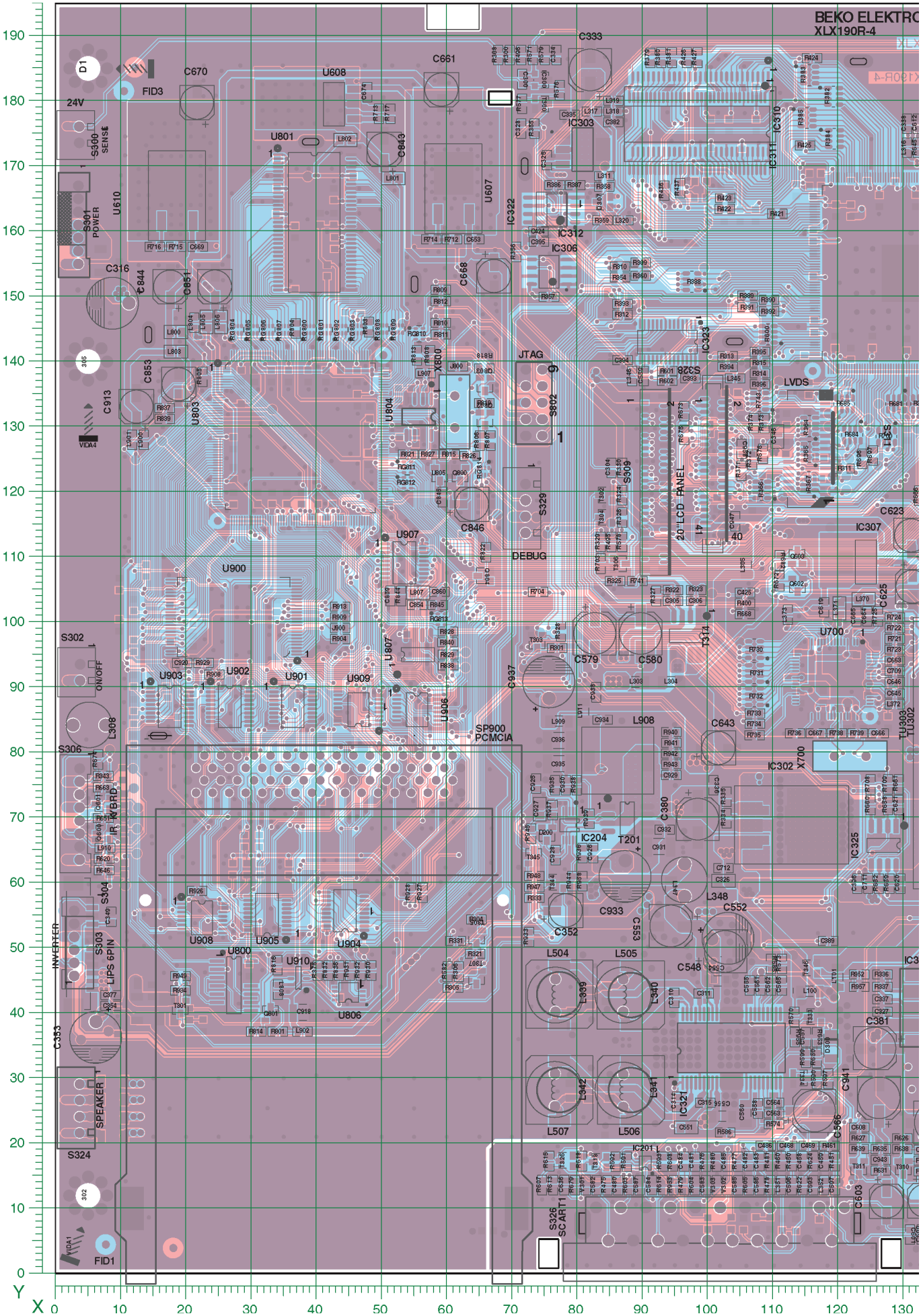
Hauptplatte / Main Board

Ansicht von der Bestückungsseite / View of Component Side



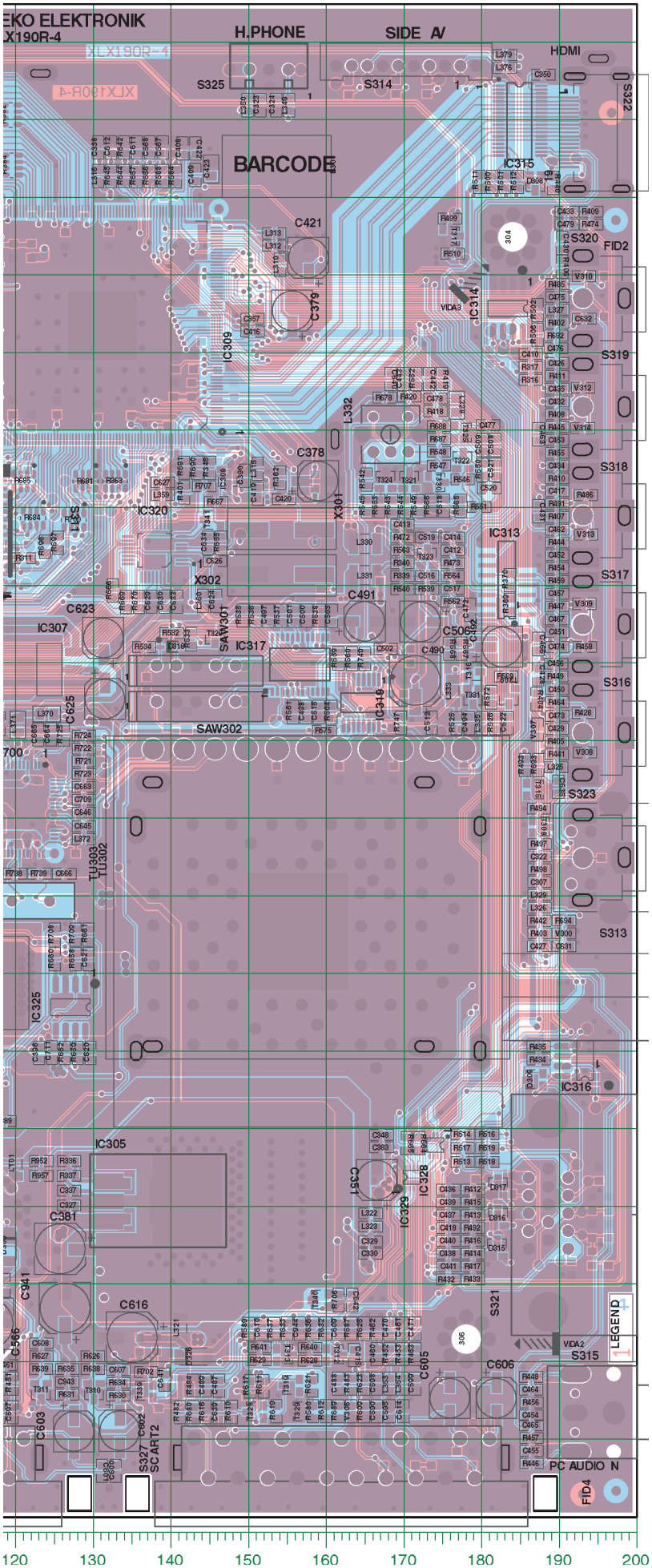
Hauptplatte / Main Board

Ansicht von der Bestückungsseite / View of Component Side



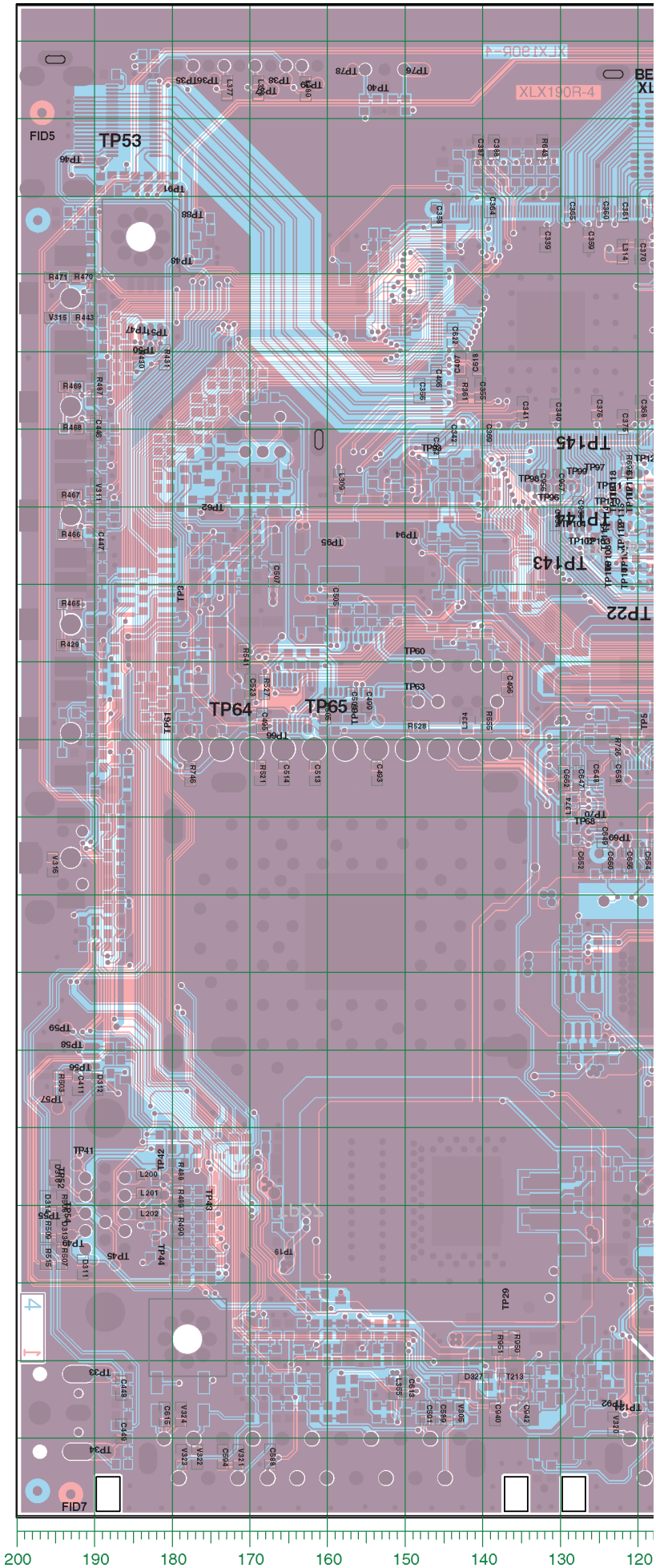
Hauptplatte / Main Board

Ansicht von der Bestückungsseite / View of Component Side



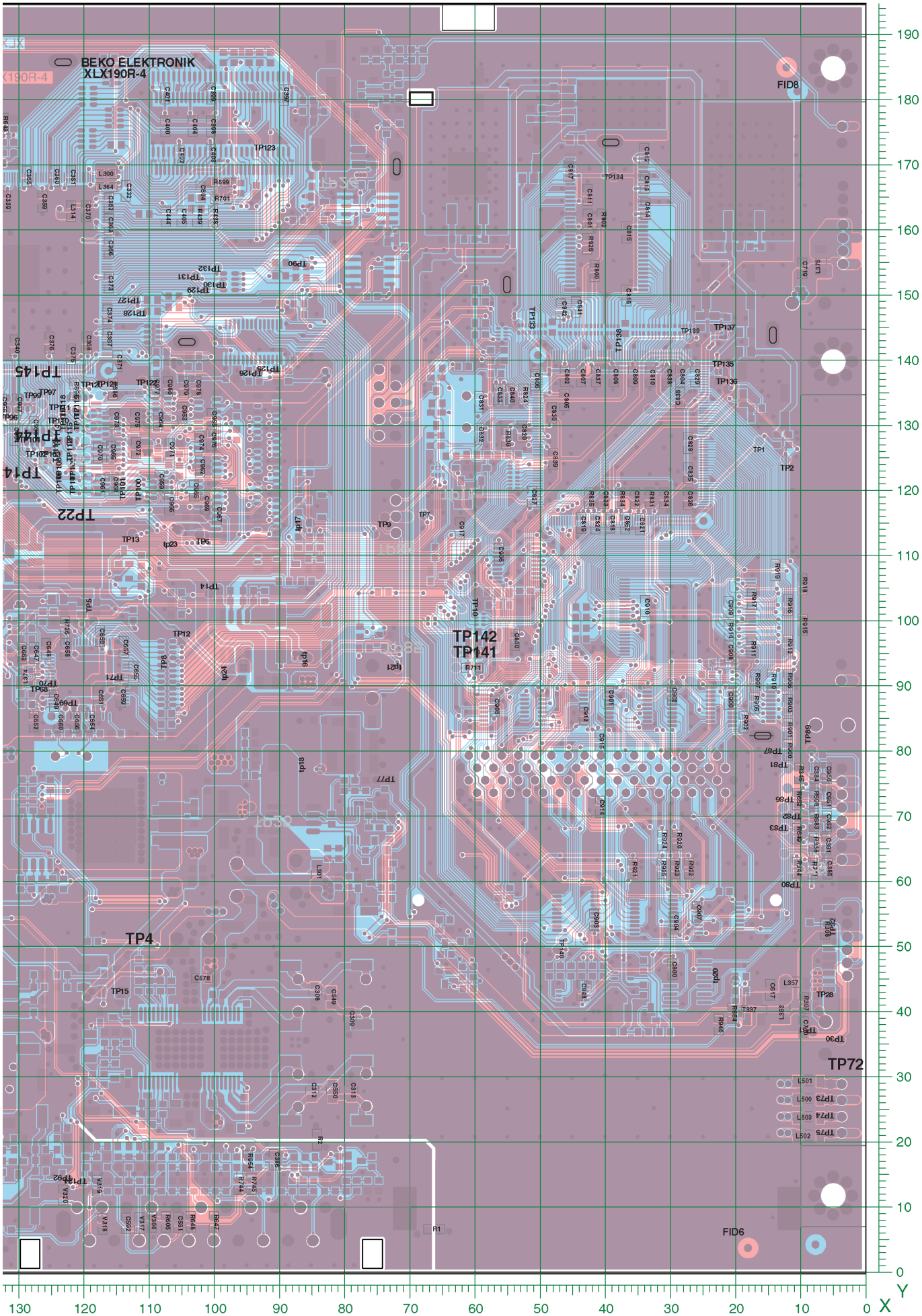
Hauptplatte / Main Board

Ansicht von der Lötseite / View of Solder Side



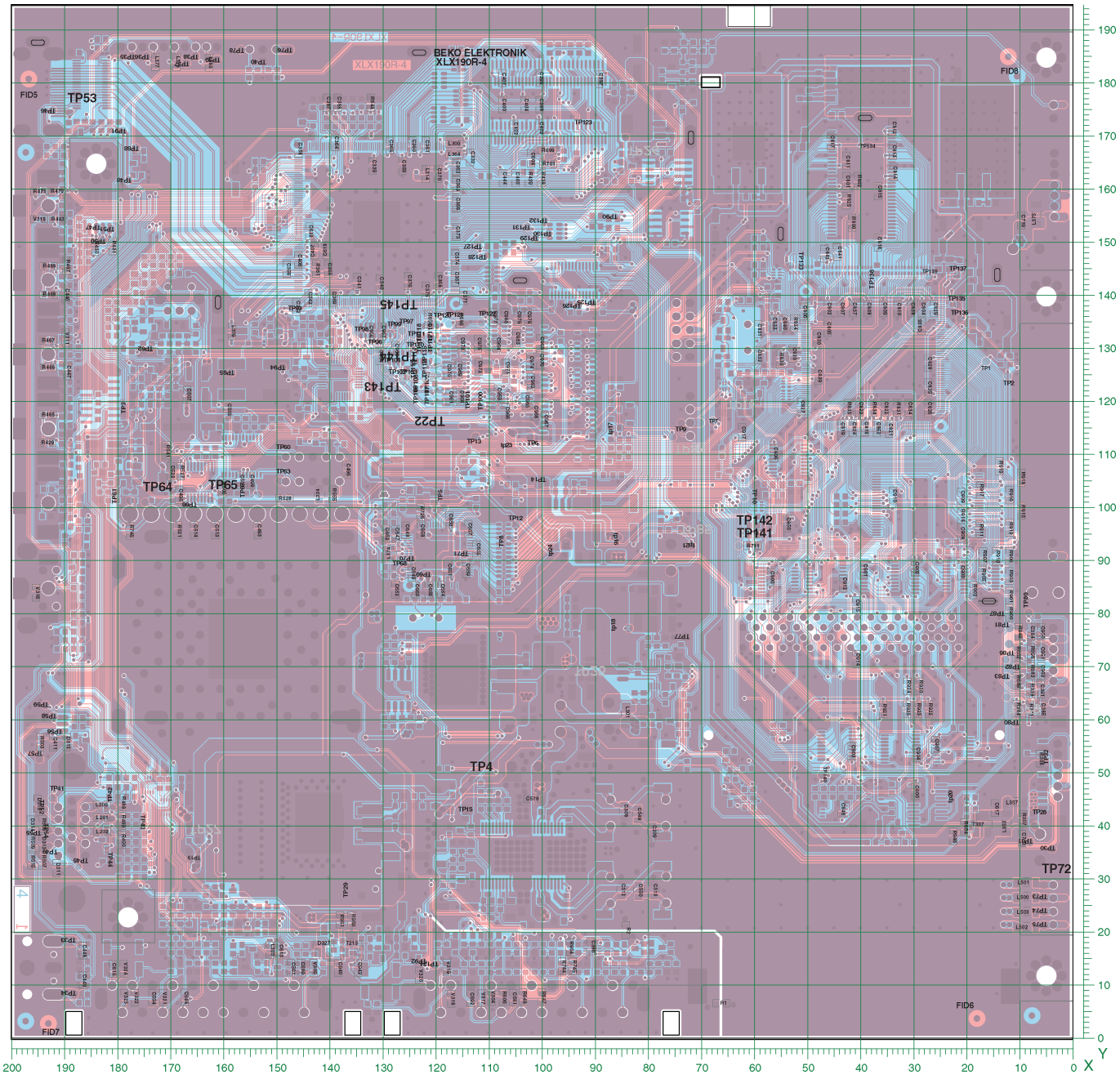
Hauptplatte / Main Board

Ansicht von der Lötseite / View of Solder Side



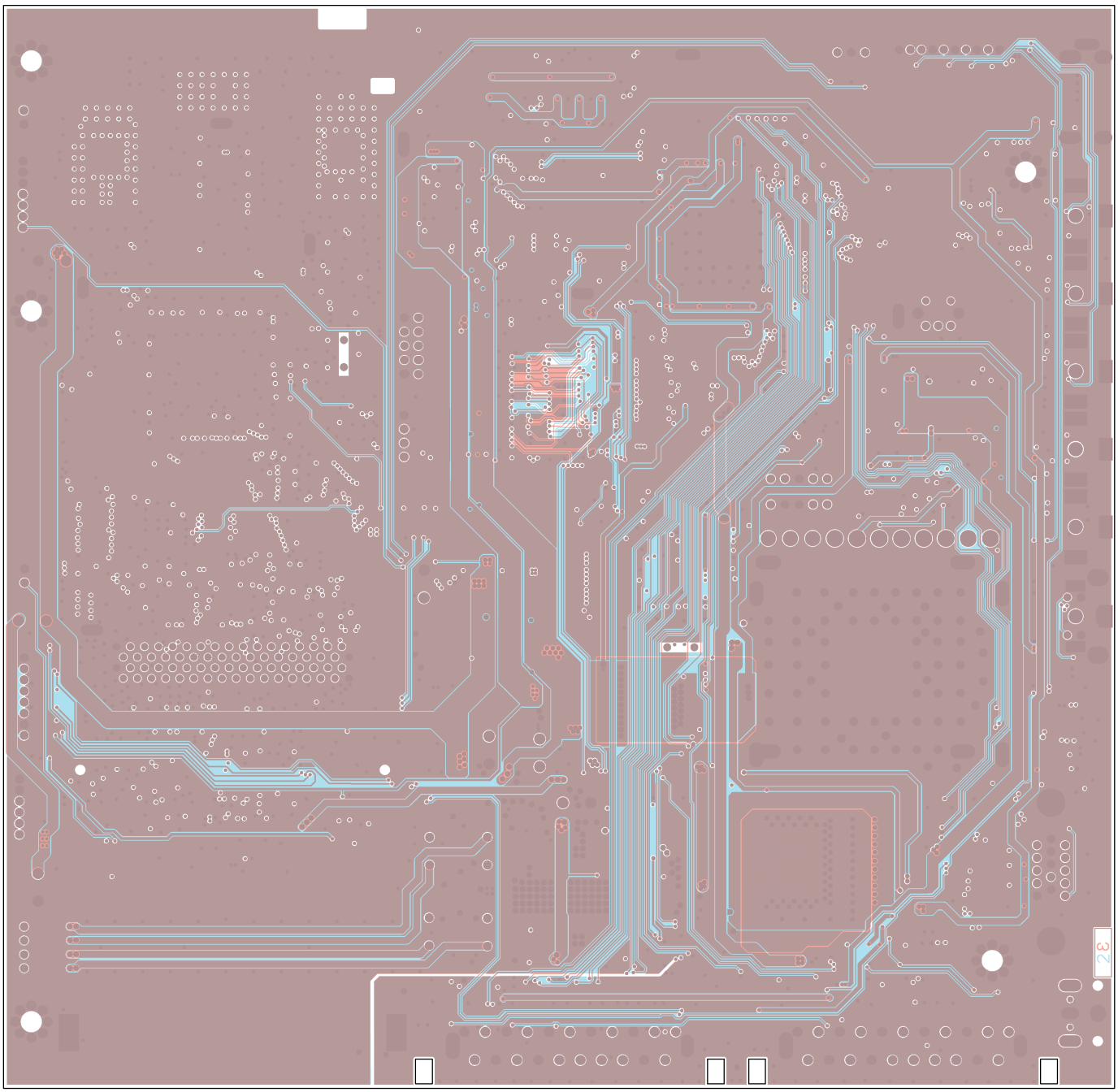
Hauptplatte / Main Board

Ansicht von der Lötseite / View of Solder Side

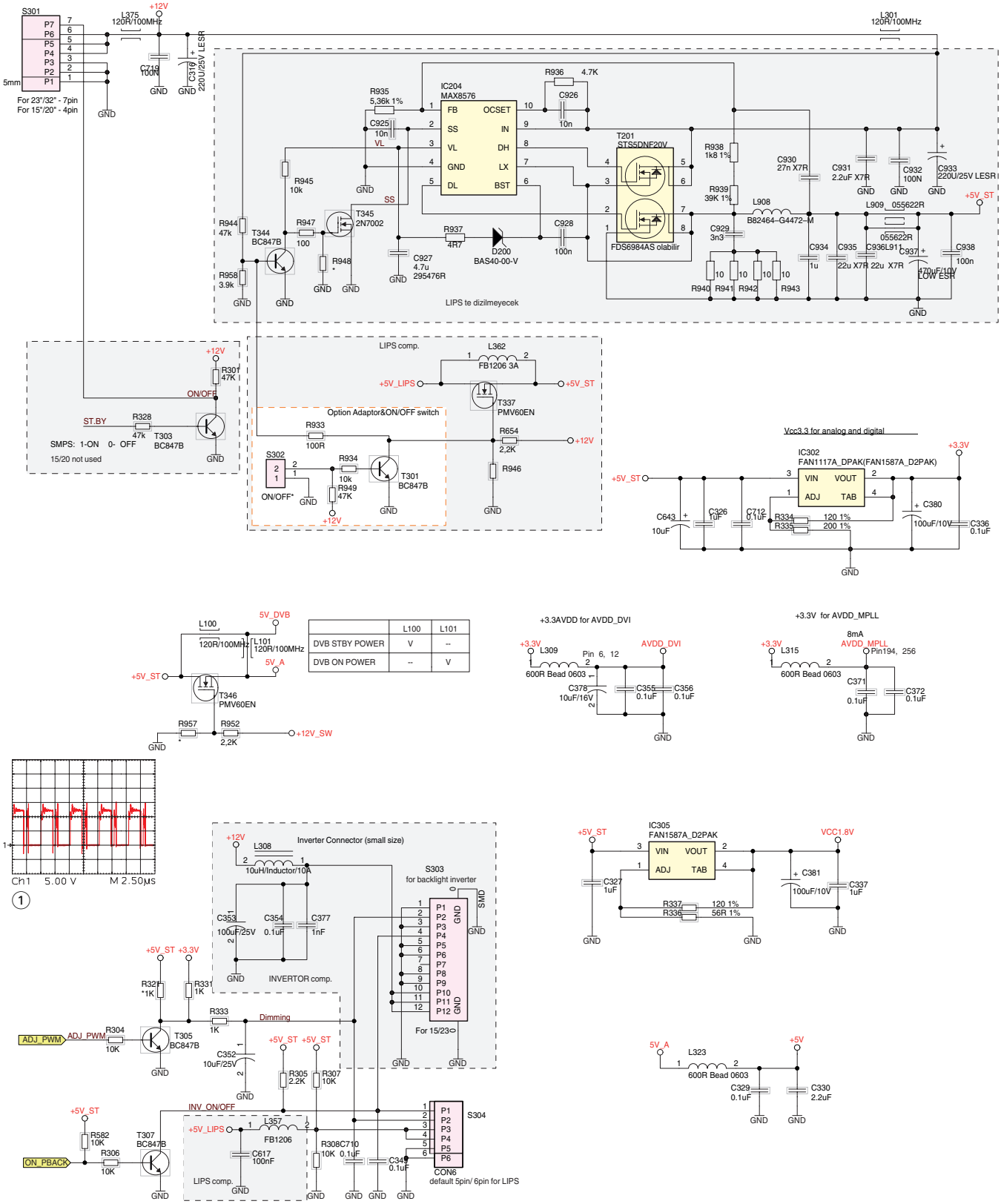


Hauptplatte / Main Board

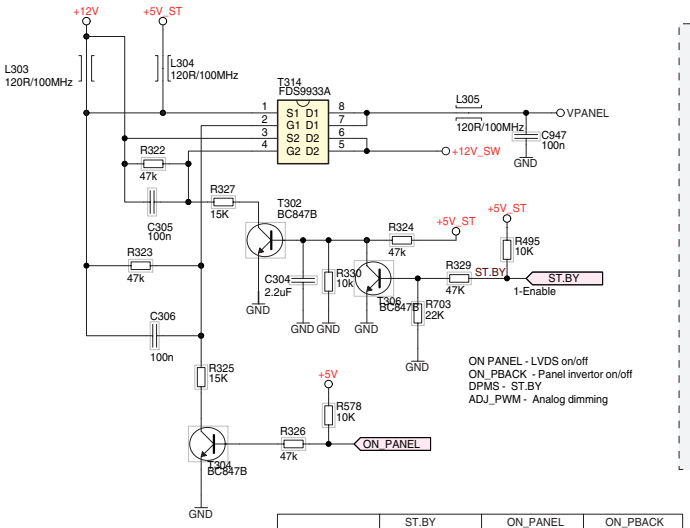
Ansicht von der Bestückungsseite – DC-Layer / View of Component Side – DC Layer



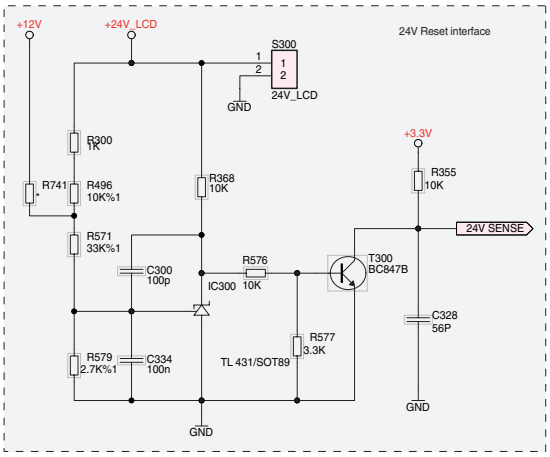
Hauptplatte – Netzteil / Main Board – Power Supply

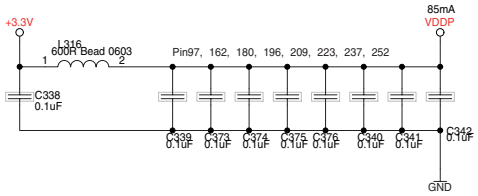


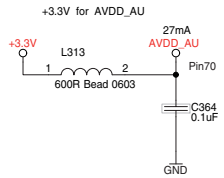
Hauptplatte – Netzteil / Main Board – Power Supply

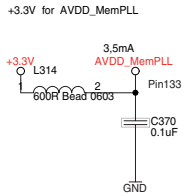


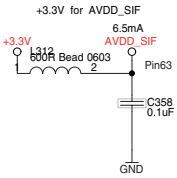
	ST.BY	ON_PANEL	ON_PBACK
LOW ST-BY	ENABLE(HIGH)	DISABLE(LOW)	DISABLE(HIGH)
ACTIVE ST-BY	DISABLE(LOW)	DISABLE(LOW)	DISABLE(HIGH)

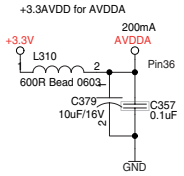


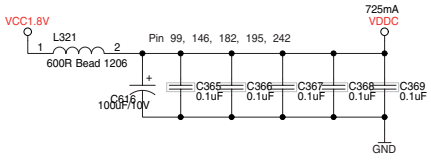


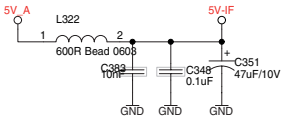


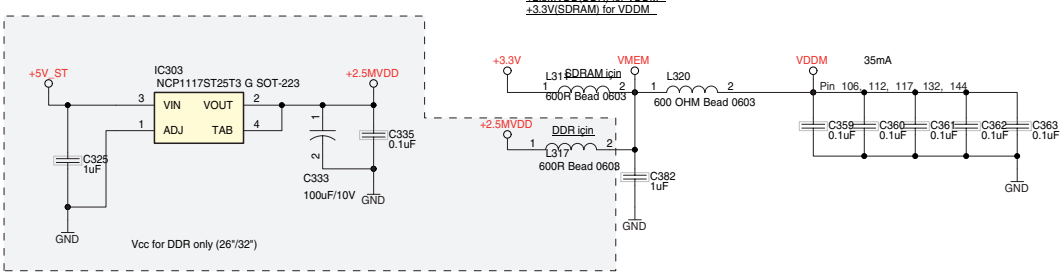




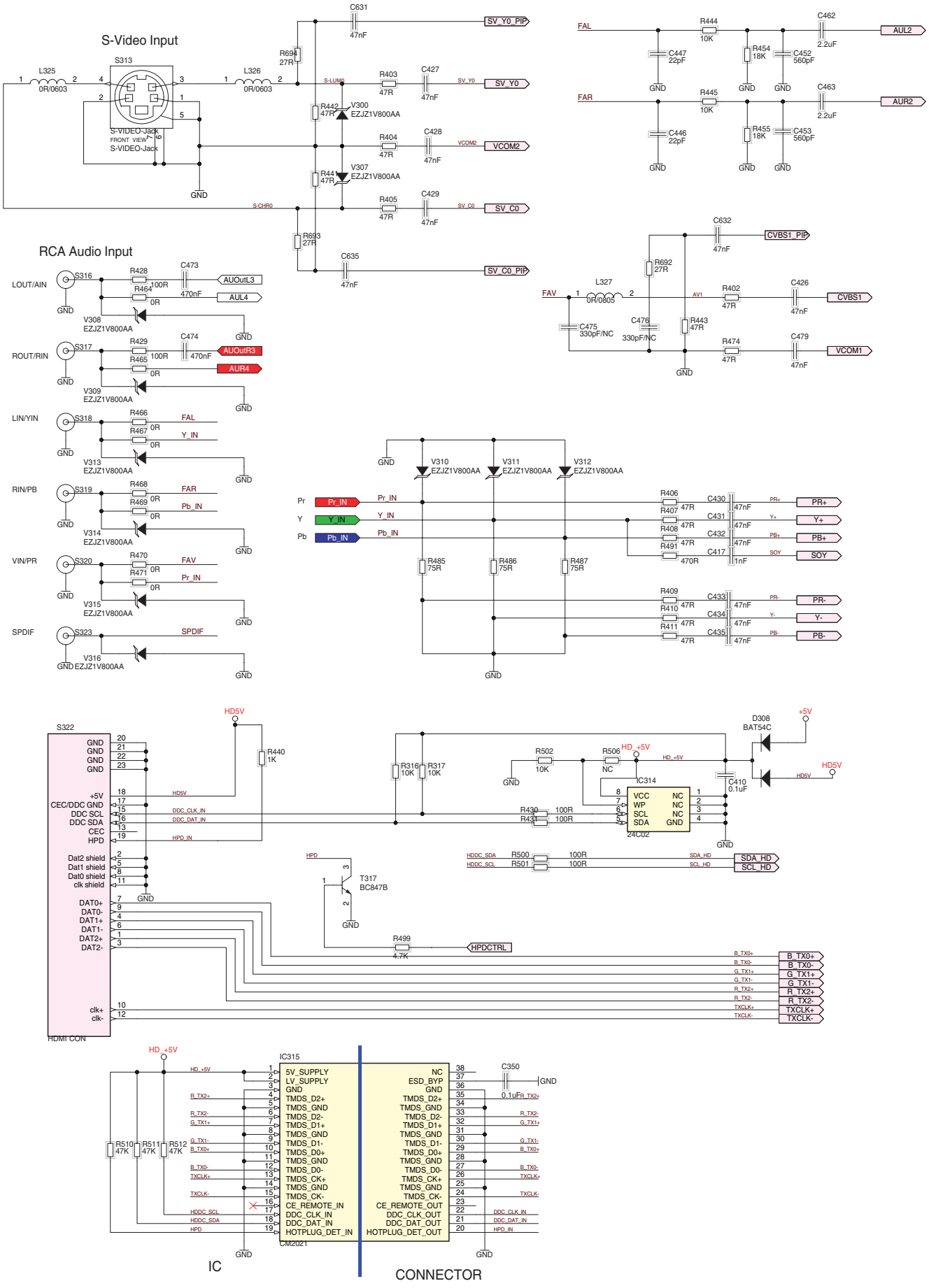




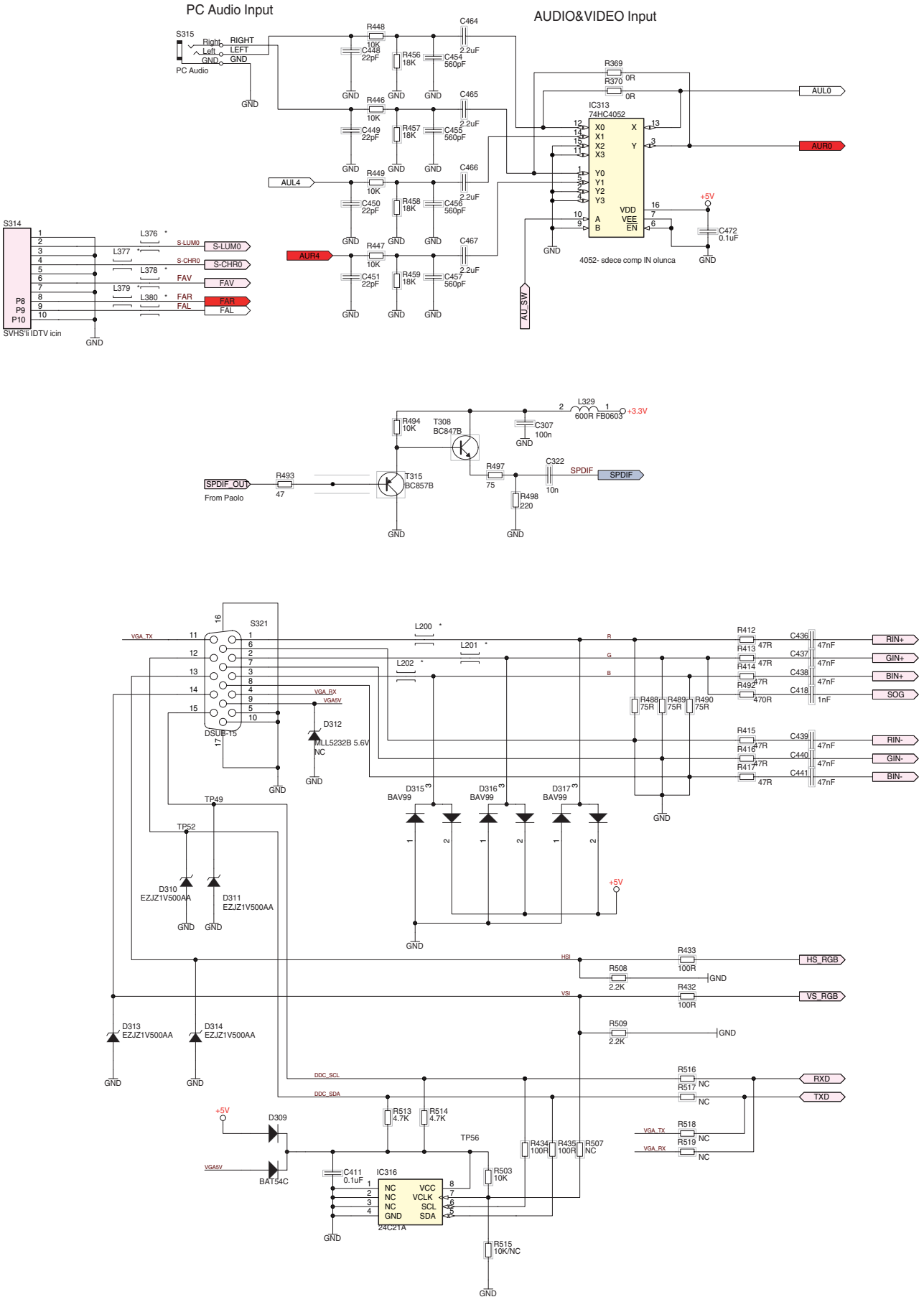




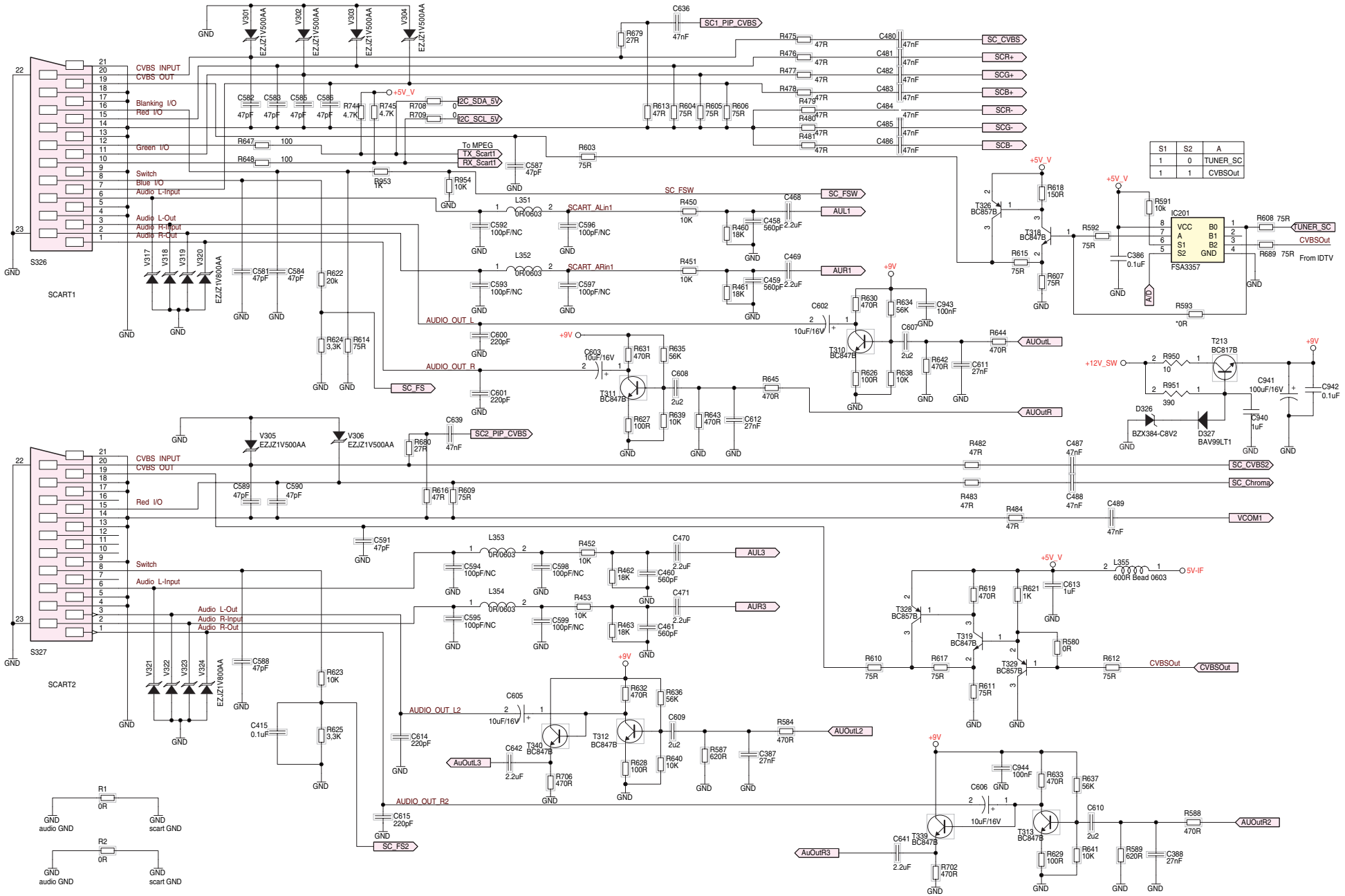
Hauptplatte / Main Board – IN/OUT 1



Hauptplatte / Main Board – IN/OUT 2

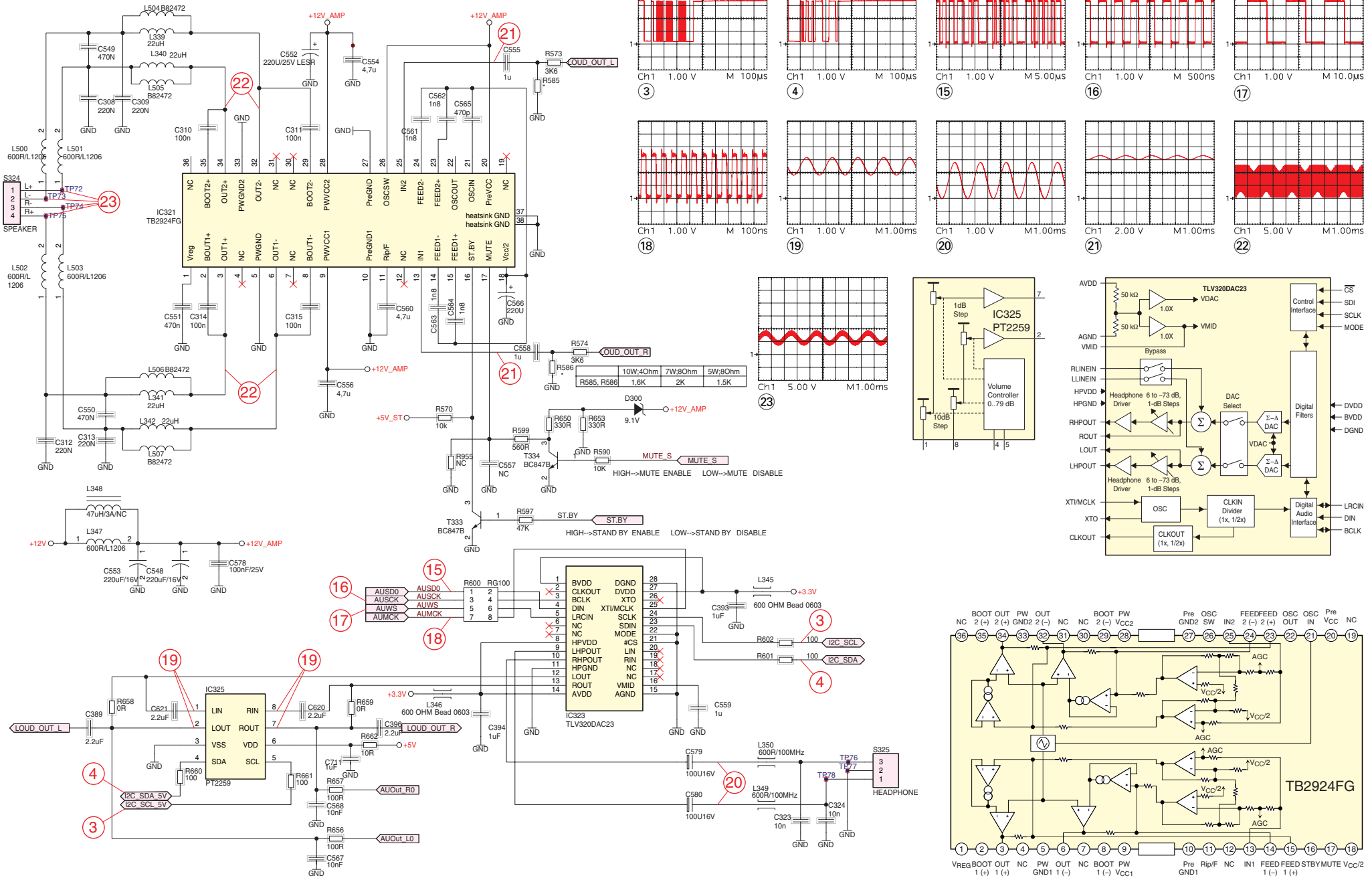


Hauptplatte / Main Board – IN/OUT 3

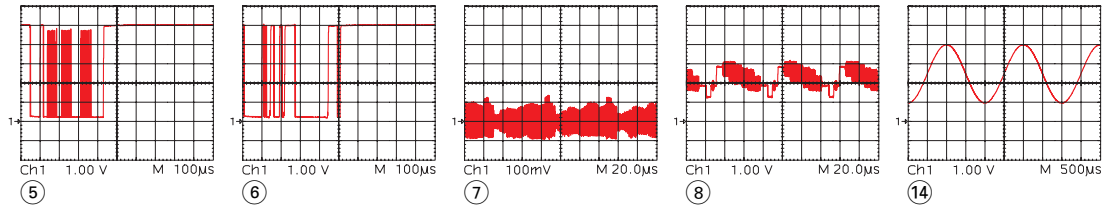


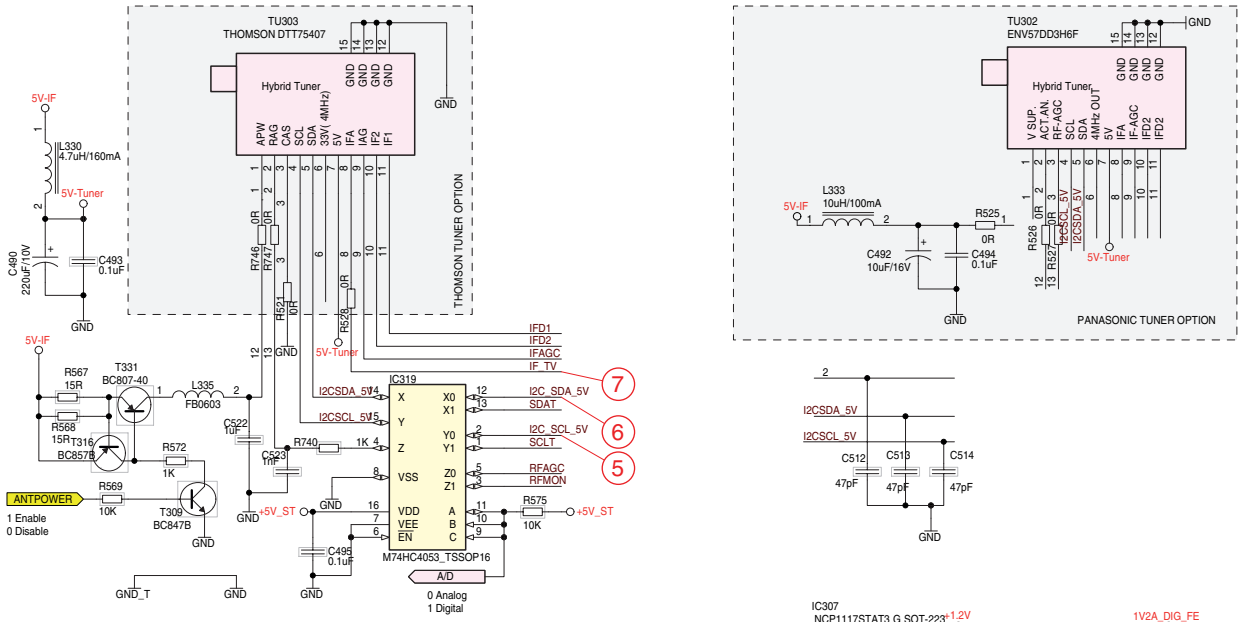
S1	S2	A
1	0	TUNER_SC
1	1	CVBSOut

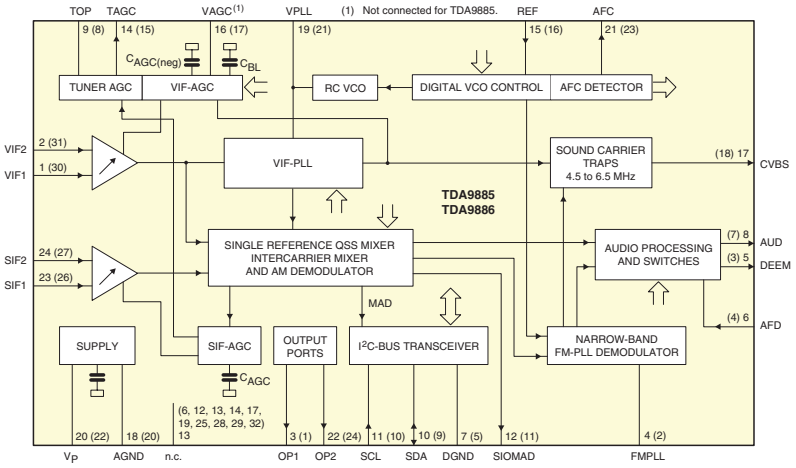
Hauptplatte – Verstärker/ Main Board – Amplifier

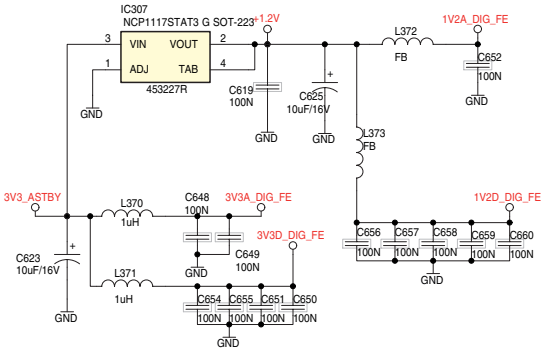


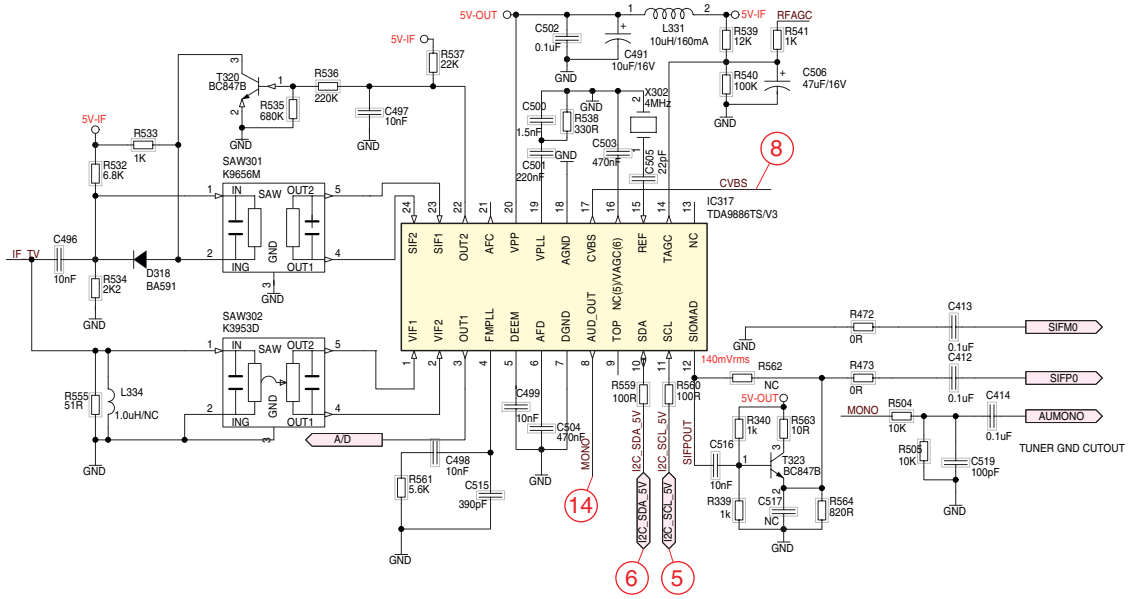
Hauptplatte / Main Board – Tuner



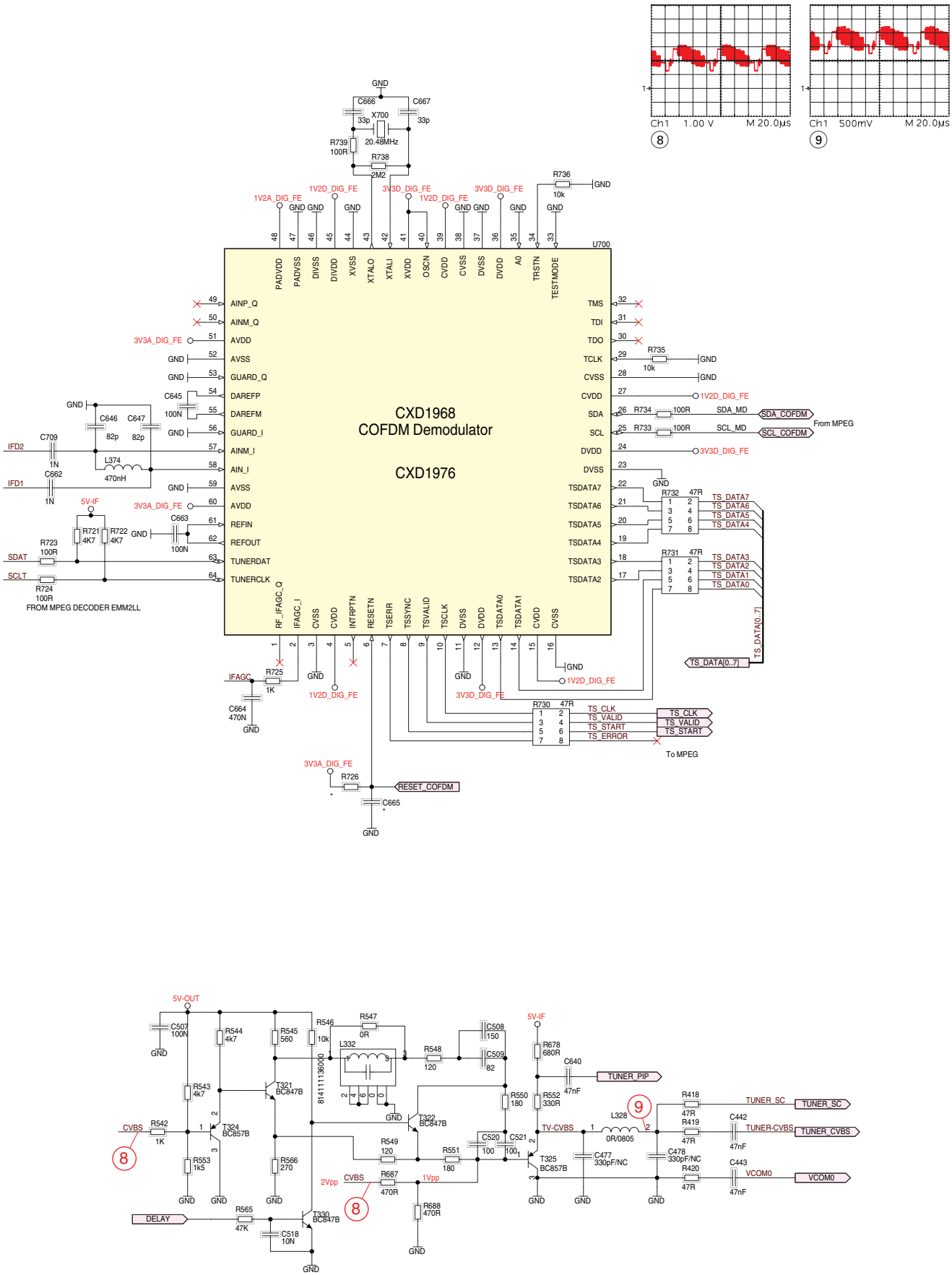




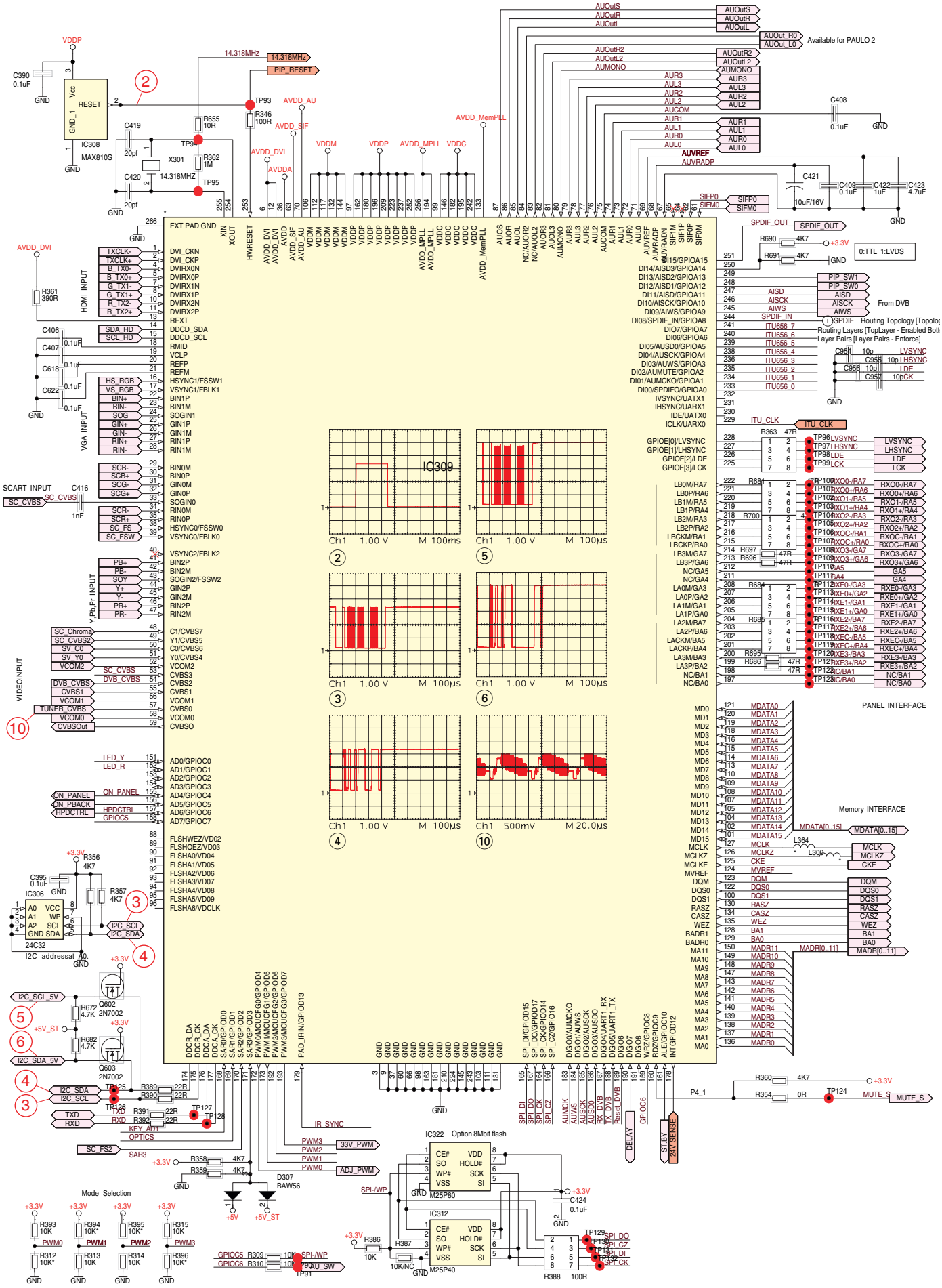




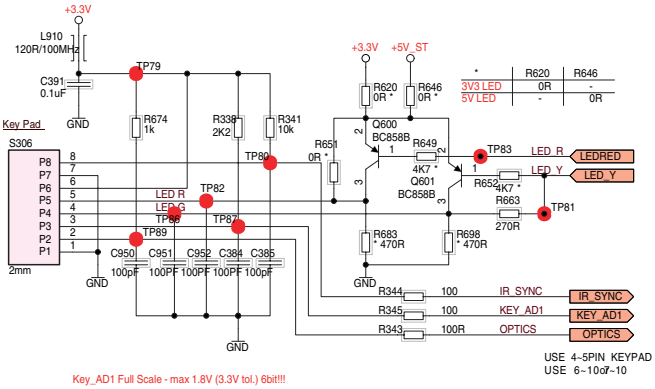
Hauptplatte / Main Board – COFDM Demodulator



Hauptplatte / Main Board – Scaler

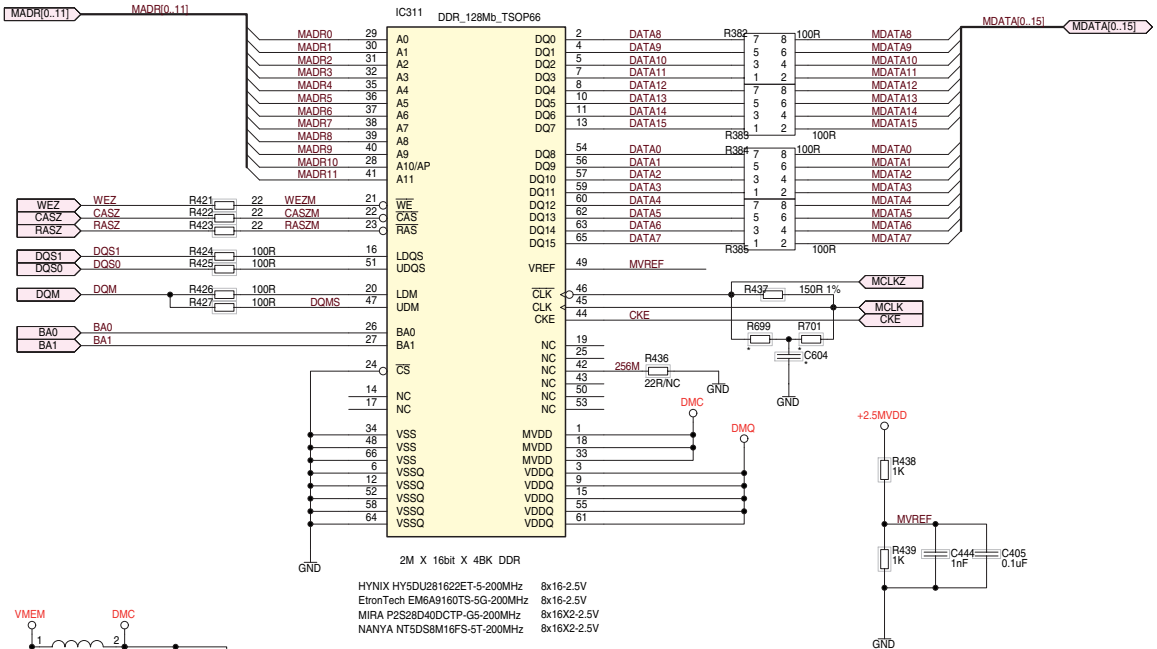


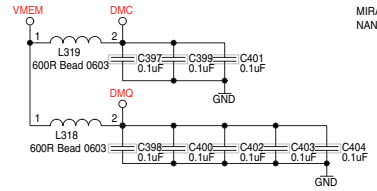
Hauptplatte / Main Board – Scaler

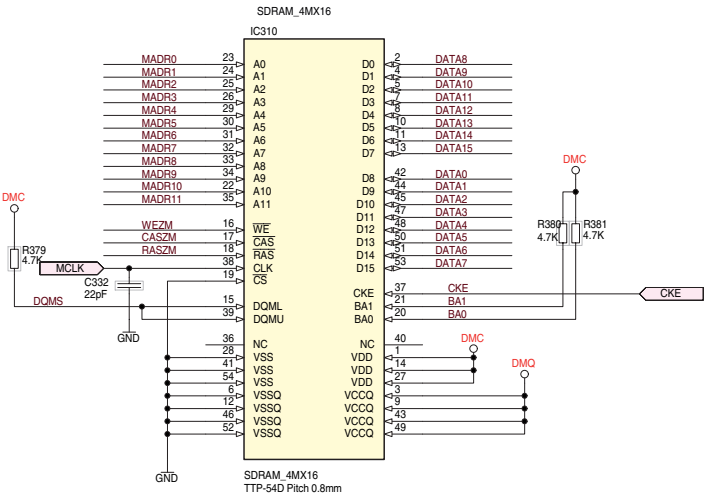


	R620	R646
3V3 LED	0R	-
5V LED	-	0R

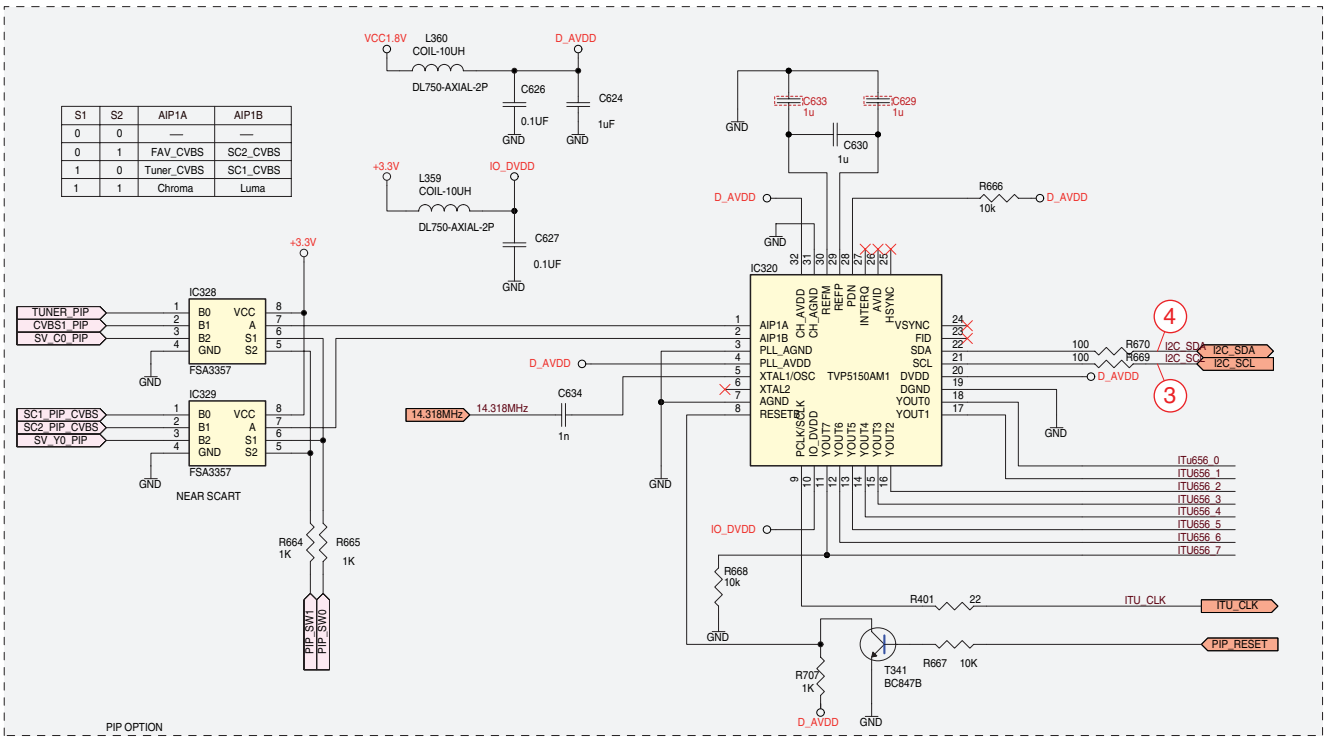
ST-BY OPTIONS	R651	R683	R698	R649	R652	R663	Q600	Q601
LED ON ON ST-BY	0R	-	470R	-	-	270R	-	-
LED OFF ON ST-BY	-	-	470R	4K7	-	270R	BC858B	-
TWO LEDS	-	470R	470R	4K7	4K7	-	BC858B	BC858B

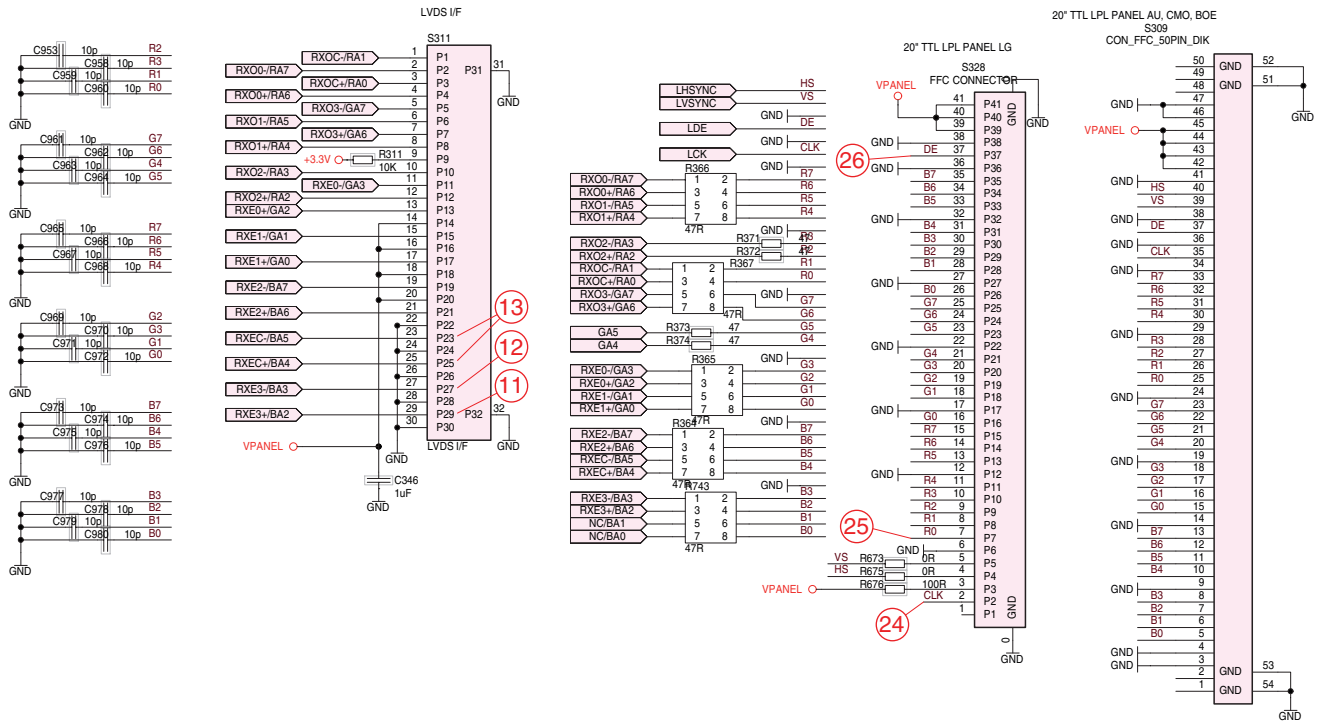


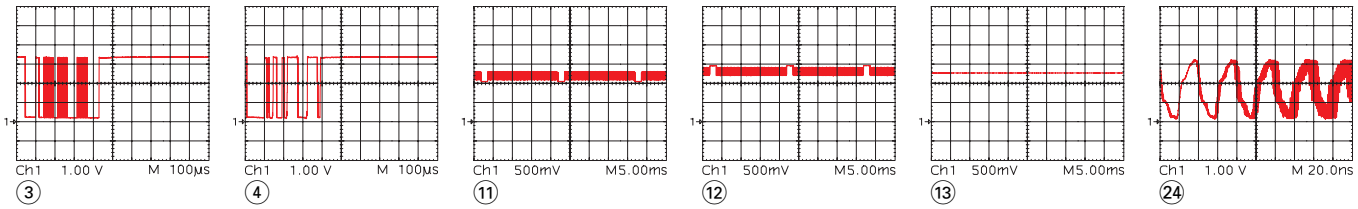


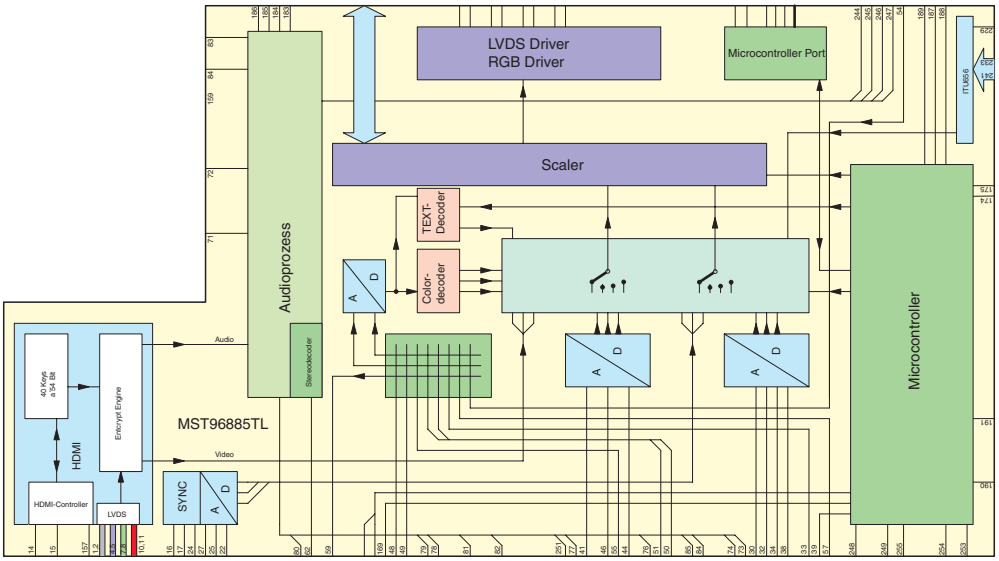


Hauptplatte / Main Board – Scaler

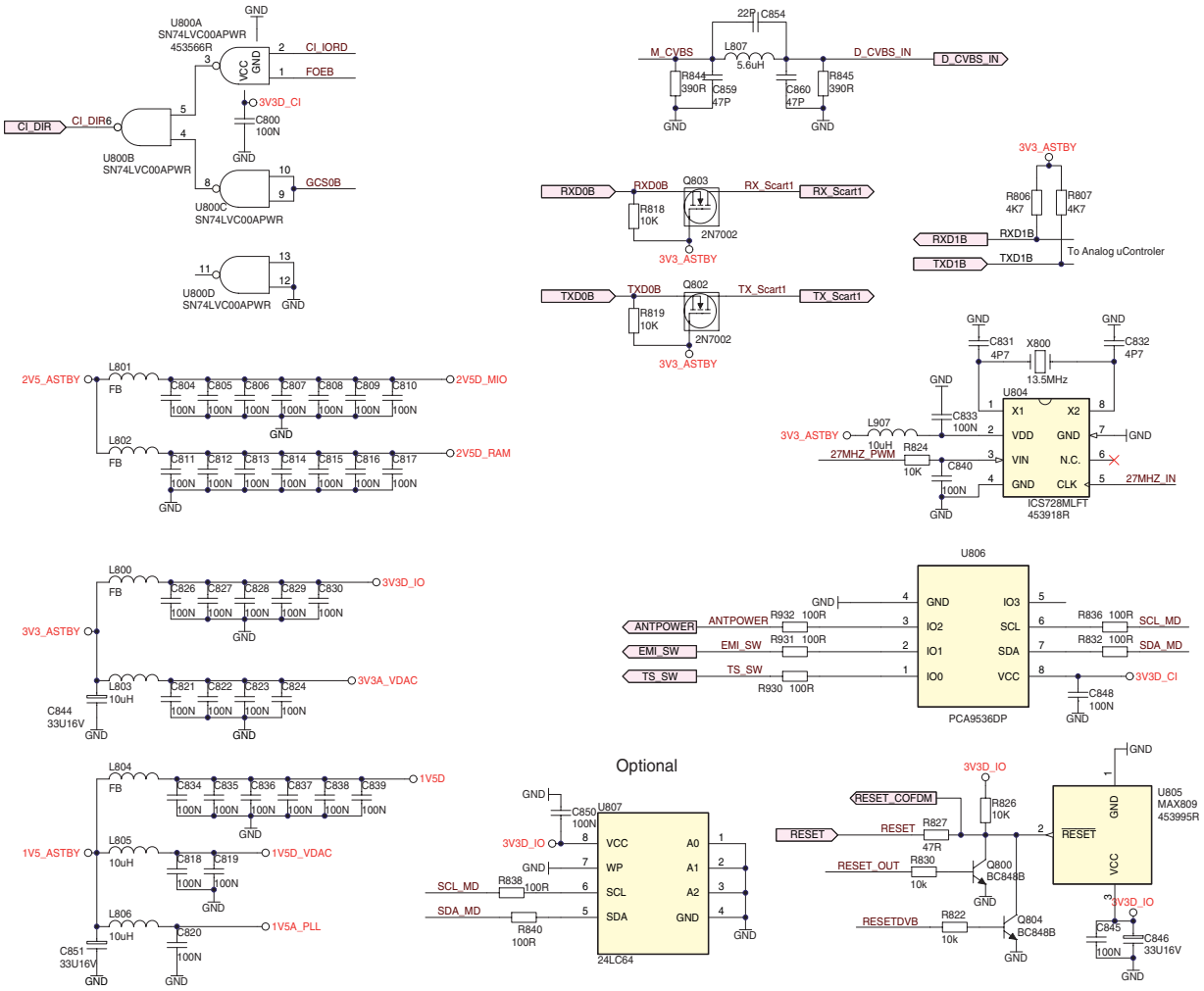

S1 S2 AIP1A AIP1B
0 0 — —
0 1 FAV_CVBS SC2_CVBS
1 0 Tuner_CVBS SC1_CVBS
1 1 Chroma Luma
VCC1.8V L360 COIL-10UH DL750-AXIAL-2P C626 0.1UF C624 1uF D_AVDD
+3.3V L359 COIL-10UH DL750-AXIAL-2P C627 0.1UF IO_DVDD
IC633 1u IC629 1u C630 1u R666 10k
IC320 TVP5150AM1
AIP1A AIP1B PLL_AGND PLL_AVDD XTAL1/OSC XTAL2 AGND RESETB
CH_AVDD CH_AGND REFM REFP PDN INTERQ AVID HSYNC VSYNC FID SDA SCL DVDD DGND YOUT0 YOUT1
PCLK/SCLK IO_DVDD YOUT7 YOUT6 YOUT5 YOUT4 YOUT3 YOUT2
ITU656_0 ITU656_1 ITU656_2 ITU656_3 ITU656_4 ITU656_5 ITU656_6 ITU656_7
IC328 IC329 FSA3357
TUNER_PIP CVBS1_PIP SV_C0_PIP
SC1_PIP_CVBS SC2_PIP_CVBS SV_Y0_PIP
NEAR SCART
14.318MHz C634 1n
R664 1K R665 1K PIP_SW1 PIP_SW0
R668 10k R401 22 ITU_CLK R667 10K PIP_RESET
T341 BC847B R707 1K
R670 100 R669 100 I2C_SDA I2C_SCL
PIP OPTION


LVDS I/F
S311
RXOC-/RA1 RXOC+/RA0 RXO0-/RA7 RXO0+/RA6 RXO3-/GA7 RXO1-/RA5 RXO3+/GA6 RXO1+/RA4 RXO2-/RA3 RXE0-/GA3 RXO2+/RA2 RXE0+/GA2 RXE1-/GA1 RXE1+/GA0 RXE2-/BA7 RXE2+/BA6 RXEC-/BA5 RXEC+/BA4 RXE3-/BA3 RXE3+/BA2
+3.3V R311 10K C346 1uF VPANEL
20" TTL LPL PANEL LG
S328 FFC CONNECTOR
LHSYNC LVSYNC LDE LCK GA5 GA4 NC/BA1 NC/BA0
R366 R371 R372 R367 R373 R374 R365 R364 R743 47R
VPANEL R673 R675 R676 0R 100R
20" TTL LPL PANEL AU, CMO, BOE
S309 CON_FFC_50PIN_DIK

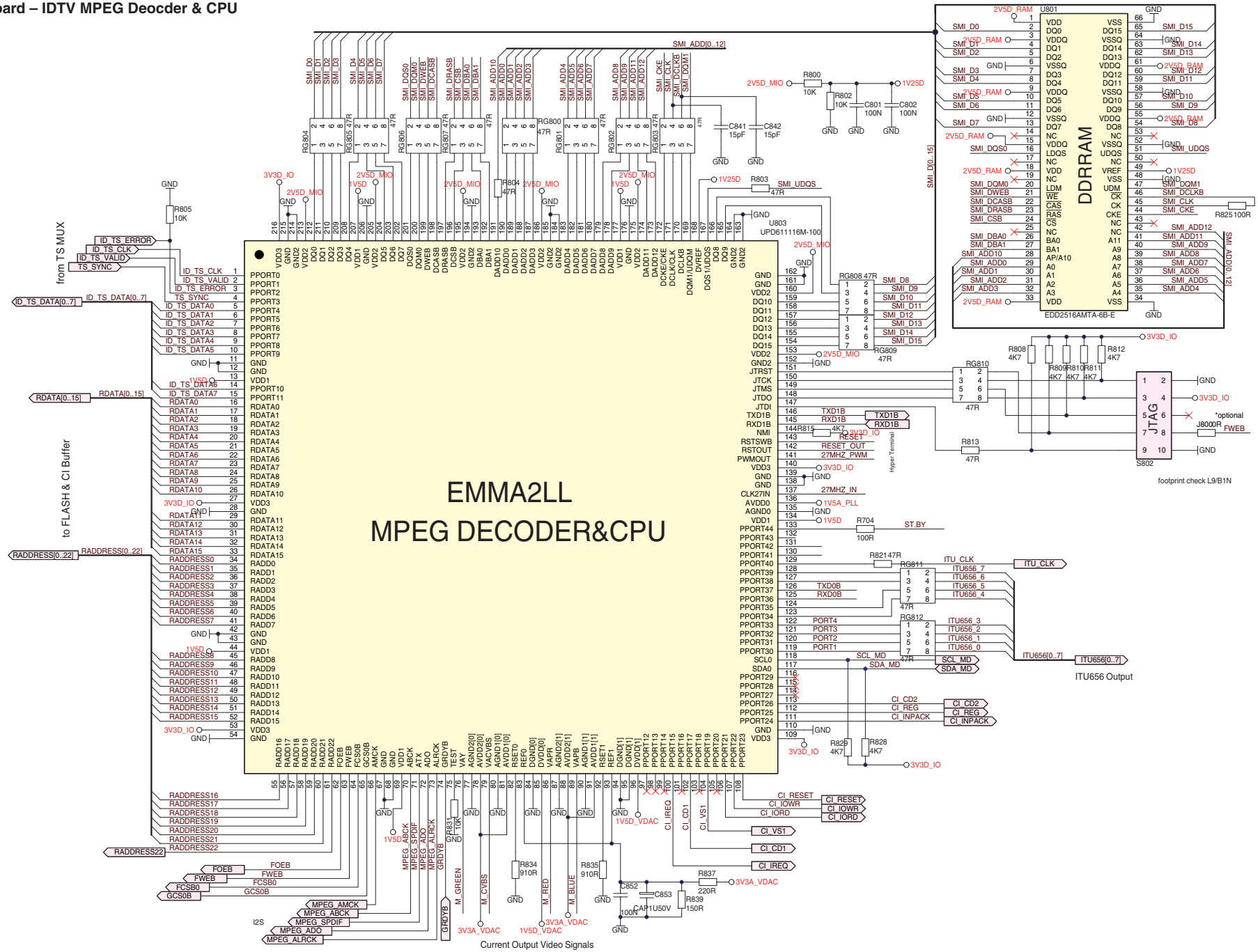




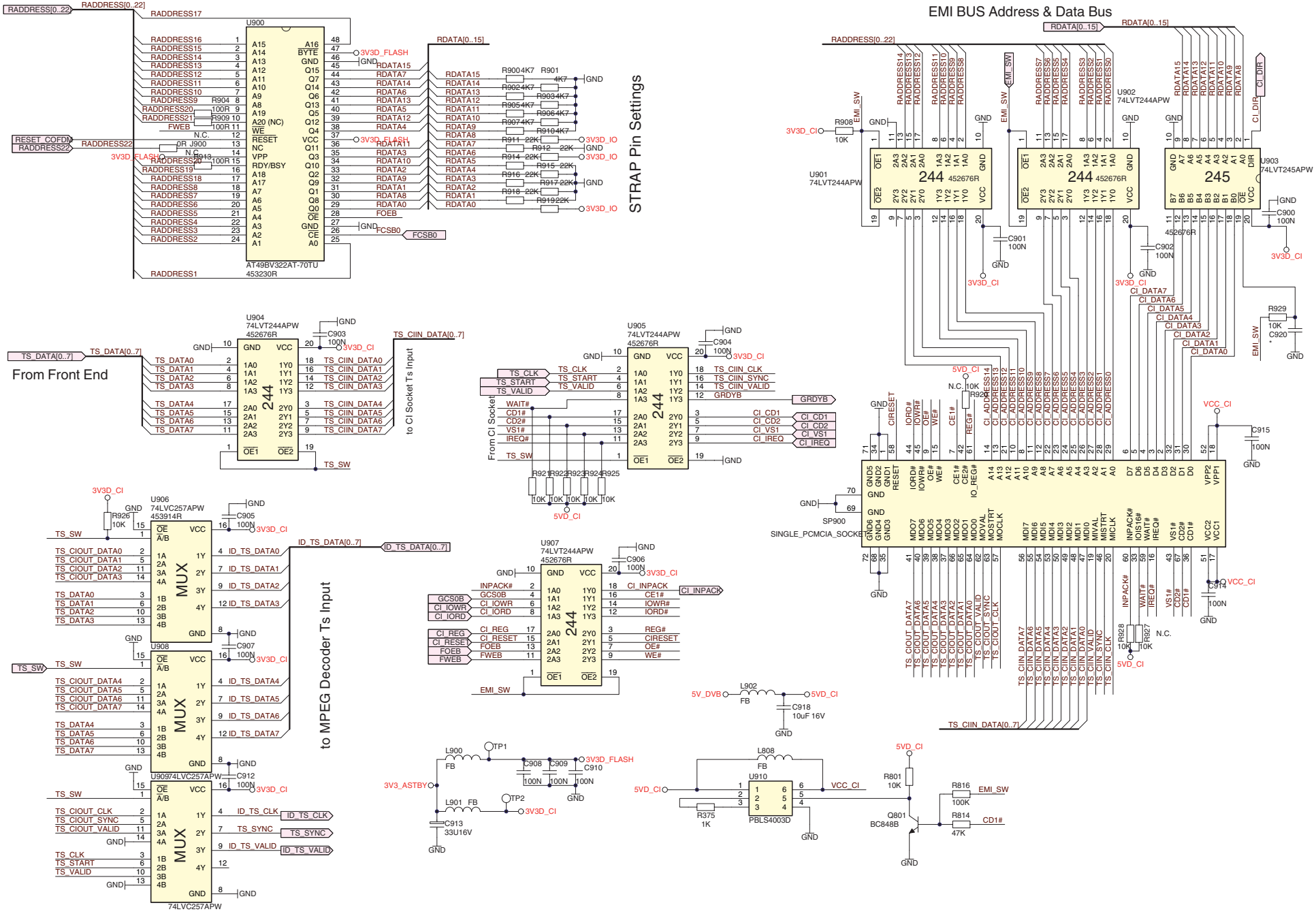
Hauptplatte / Main Board – IDTV MPEG Deocder & CPU



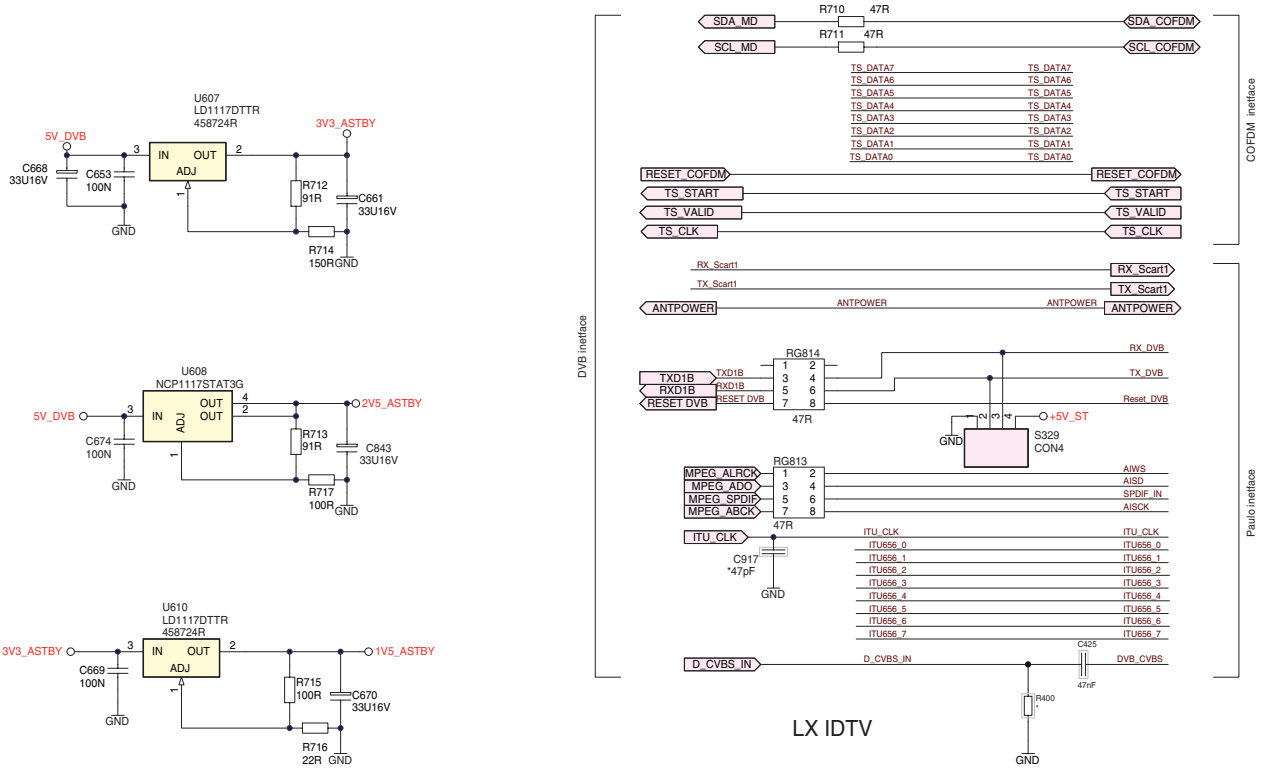
Hauptplatte / Main Board – IDTV MPEG Deocder & CPU



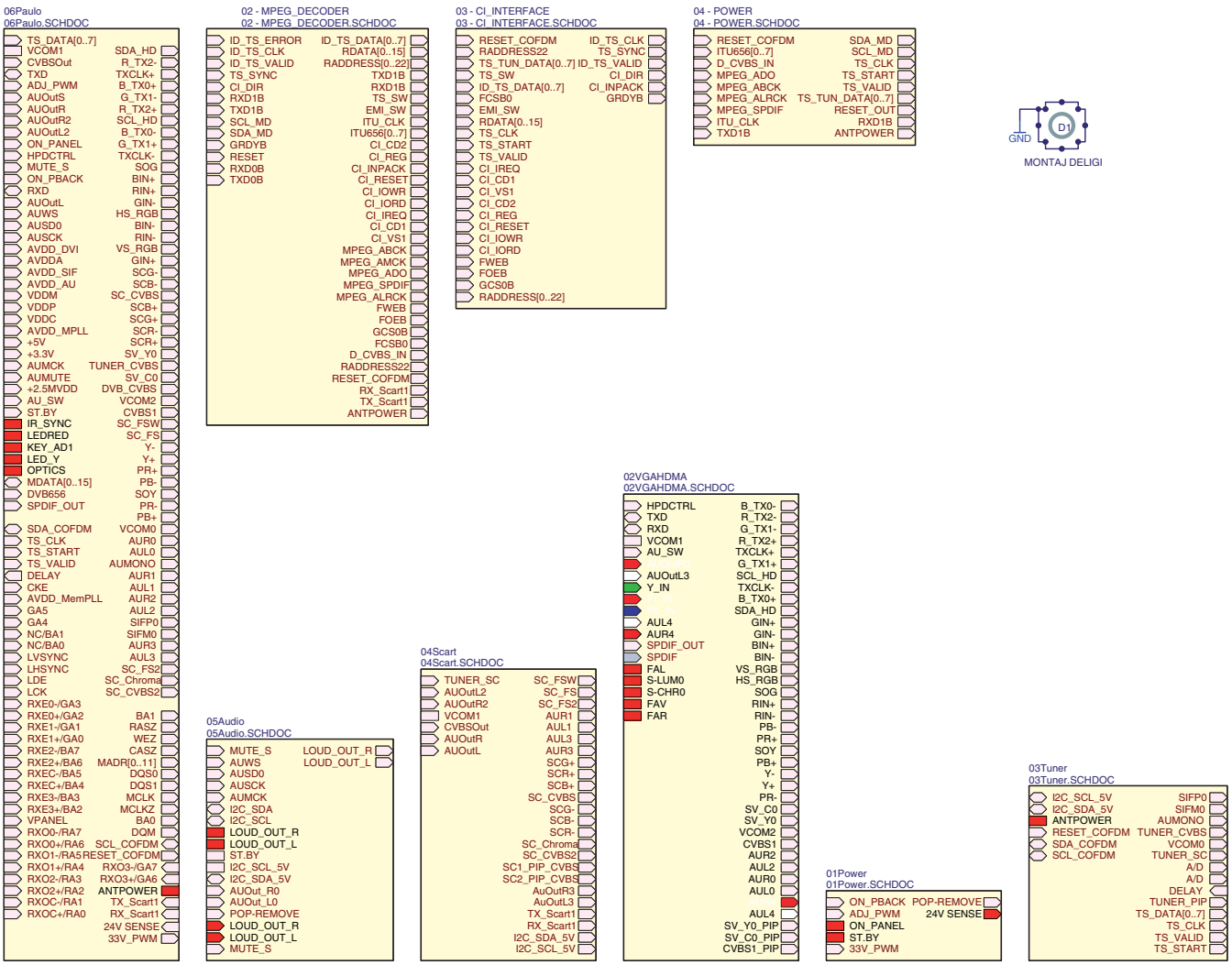
Hauptplatte / Main Board – IDTV MPEG Deocder & CPU



Hauptplatte – IDTV-Netzteil / Main Board – IDTV Power Supply

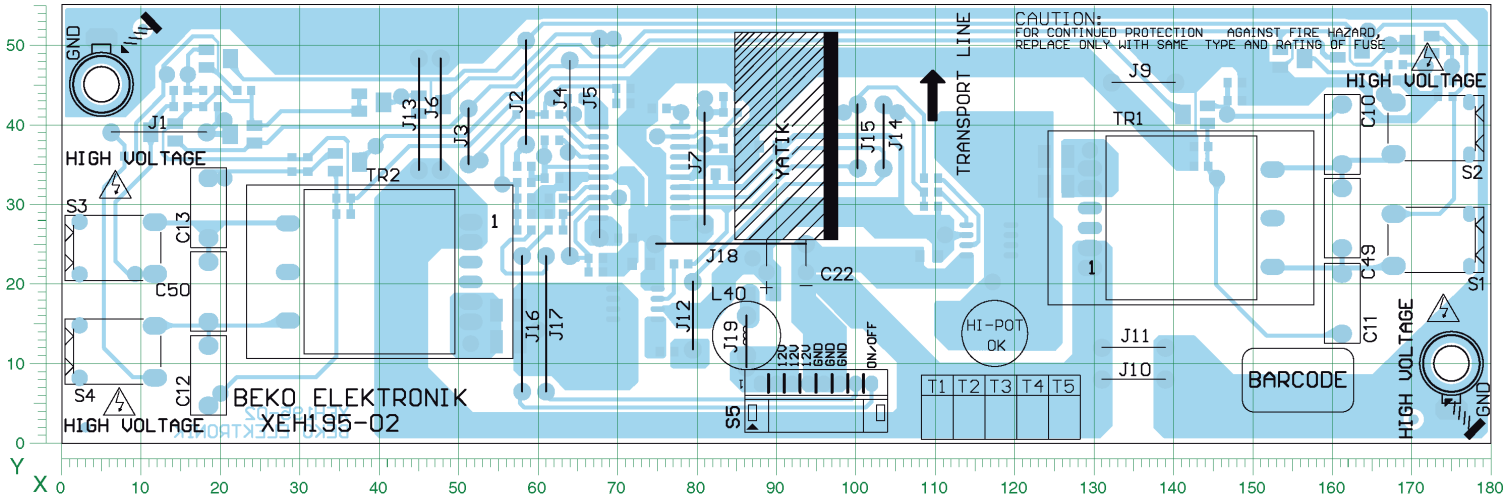


Hauptplatte – Übersicht / Main Board – Overview

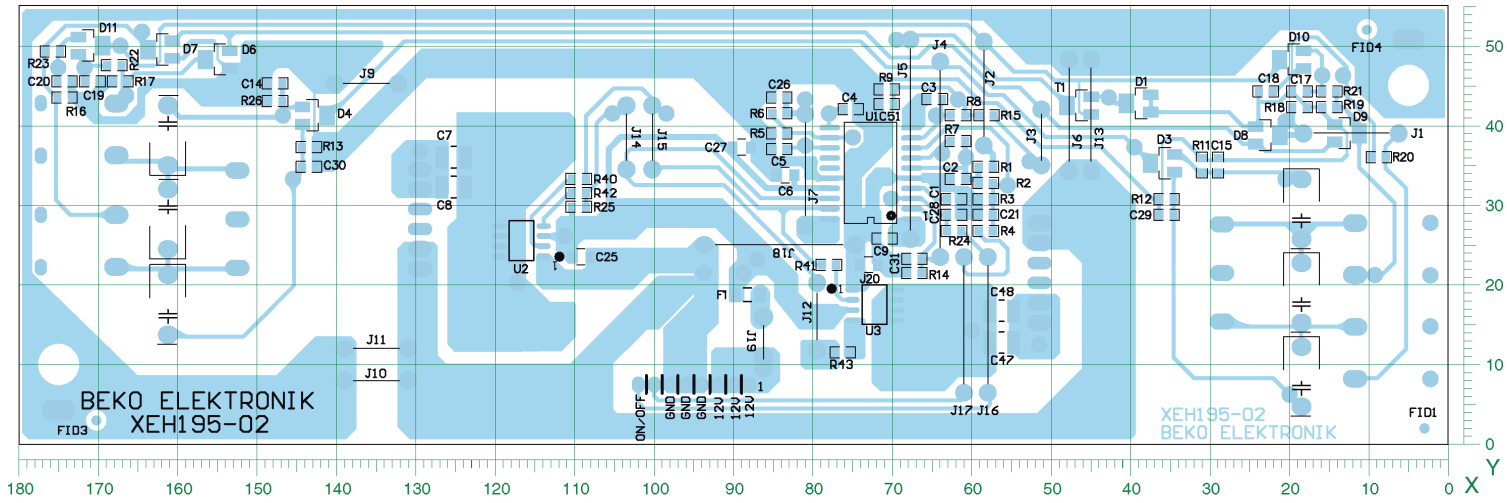


Inverter-Platte / Board

Ansicht von der Bestückungsseite / View of Component Side



Ansicht von der Lötseite / View of Solder Side



POS.		X	Y
C1	B	62	31
C2	B	62	33
C3	B	65	43
C4	B	75	42
C5	B	84	37
C6	B	84	34
C7	B	125	36
C8	B	125	32
C9	B	71	26
C10	T	161	39
C11	T	161	18
C12	T	19	9
C13	T	19	30
C14	B	148	45
C15	B	29	35
C17	B	19	44
C18	B	23	44
C19	B	171	46
C20	B	174	46
C21	B	58	29
C22	T	91	22
C25	B	109	24
C26	B	84	44
C27	B	89	37
C28	B	62	29
C29	B	36	29
C30	B	144	35
C31	B	67	23
C47	B	56	13
C48	B	56	17
C49	T	161	28
C50	T	19	19
C51	B	71	43
D1	B	39	43
D3	B	36	35
D4	B	143	41
D6	B	155	48
D7	B	162	50
D8	B	23	39
D9	B	13	39
D10	B	20	48
D11	B	171	50
F1	B	88	19
J1	T	12	39
J2	T	59	44
J3	T	51	39
J4	T	64	36
J5	T	68	38

POS.		X	Y
J6	T	48	41
J7	T	81	34
J9	T	136	45
J10	T	135	8
J11	T	135	12
J12	T	80	16
J13	T	45	41
J14	T	104	39
J15	T	100	39
J16	T	58	15
J17	T	61	15
J18	T	84	25
J19	T	86	13
J20	B	73	23
L40	T	86	14
R1	B	58	35
R2	B	58	33
R3	B	58	31
R4	B	58	27
R5	B	84	39
R6	B	84	42
R7	B	62	38
R8	B	62	41
R9	B	71	45
R11	B	31	35
R12	B	36	31
R13	B	144	37
R14	B	67	22
R15	B	58	41
R16	B	174	44
R17	B	167	46
R18	B	19	42
R19	B	15	42
R20	B	9	36
R21	B	15	44
R22	B	168	48
R23	B	176	49
R24	B	62	27
R25	B	110	30
R26	B	148	43
R40	B	110	33
R41	B	78	23
R42	B	110	32
R43	B	76	12
S1	T	173	26
S2	T	173	40
S3	T	7	25
S4	T	7	12

POS.		X	Y
S5	T	95	8
T1	B	47	43
TP1	T	111	26
TP2	T	70	31
TP4	T	61	36
TP5	T	64	37
TP6	T	56	33
TP7	T	65	41
TP8	T	62	43
TP9	T	78	42
TP10	T	75	39
TP11	T	81	38
TP12	T	105	42
TP13	T	99	42
TP14	T	81	43
TP15	T	87	23
TP16	T	117	20
TP17	T	130	37
TP18	T	40	37
TP19	T	70	51
TP20	T	167	50
TP21	T	167	44
TP22	T	165	52
TP23	T	43	44
TP24	T	172	47
TP25	T	175	47
TP26	T	9	21
TP27	T	21	41
TP28	T	16	46
TP29	T	13	46
TP30	T	147	41
TP31	T	146	33
TP32	T	20	6
TP33	T	21	33
TP34	T	53	36
TP46	T	60	14
TP47	T	52	13
TR1	T	141	28
TR2	T	40	22
U1	B	73	34
U2	B	117	26
U3	B	72	18

Inverter-Platte / Board